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Table of Contents.

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	Page.
ORIGINAL ARTICLES—	
An Address—The University and Clinical Teaching, by P. MacCallum	65
The Significance of the Wiener Conglutination Test in the Detection of Blocking Antibodies, by Vera I. Krieger, D.Sc.	70
REPORTS OF CASES—	
Inguinal Sprain, by C. E. Corlette	73
A Case of Anæmia of the Pernicious Type, by J. P. Walsh, M.B., B.S., B.D.Sc.	76
Developmental Defects, by K. M. Bowden	77
Glaucoma following Herpes, by Arthur Lawrence	78
REVIEWS—	
Social Pædiatrics	79
"A Great Man of Guy's"	79
Sternal Puncture	80
Post-Mortem Examinations	80
LEADING ARTICLES—	
The Proposal to Establish a Medical School in Western Australia	81
CURRENT COMMENT—	
The Place of Surgery in the Management of Hæmatemesis	82
The Parkinsonian Syndrome	83
ABSTRACTS FROM MEDICAL LITERATURE—	
Bacteriology and Immunology	84
Hygiene	85
BRITISH MEDICAL ASSOCIATION NEWS—	
Annual Meeting	86
Notice	91
NAVAL, MILITARY AND AIR FORCE—	
Appointments	91
POST-GRADUATE WORK—	
The Melbourne Permanent Post-Graduate Committee	91
SPECIAL CORRESPONDENCE—	
Canada Letter	91
CORRESPONDENCE—	
Cervical and Thoracic Intervertebral Disk Disease	92
The Zoological Position of Man	92
A Clear Light on the Diagnosis and Treatment of Venous Thrombosis	92
Chromoblastomycosis	93
Some Problems of Varicose Veins	93
Lumbago	93
RESEARCH—	
The Ella Sachs Plotz Foundation for the Advancement of Scientific Investigation	93
OBITUARY—	
Basil Diethelm	94
William Roy Wilson	94
Arthur Macafee Burge	95
Jack Mowbray Thomson	95
AUSTRALIAN MEDICAL BOARD PROCEEDINGS—	
New South Wales	95
Queensland	95
MEDICAL PRIZES—	
The Francis Amory Septennial Prize of the American Academy of Arts and Sciences	95
THE FEDERAL MEDICAL WAR RELIEF FUND	95
NOMINATIONS AND ELECTIONS	95
MEDICAL APPOINTMENTS	96
BOOKS RECEIVED	96
DIARY FOR THE MONTH	96
MEDICAL APOINTMENTS: IMPORTANT NOTICE	96
EDITORIAL NOTICES	96

An Address.[1]

THE UNIVERSITY AND CLINICAL TEACHING.[1]

By P. MACCALLUM,

Retiring President of the Victorian Branch of the British Medical Association.

THE choice of a subject for a presidential address has been determined for me, not only by the nature of my experience but by the channel in which my thoughts have been flowing recently. Though many of my remarks refer specifically to conditions existing in Melbourne, they have also a much more general reference.

During the last few months I have been called upon to examine intensively my ideas of medical school development and the university-hospital relationship. The problems associated with these are necessarily of perennial interest to those engaged in teaching in medical schools, but they also impinge directly on medical practice and hence concern the medical services and well-being of the whole community.

Before taking up duty in the Department of Pathology in the University of Melbourne, I had taught in the subjects of clinical medicine and of pathology in institutions of two very different kinds, the University of Edinburgh and the "extramural" school of the Royal Colleges.

Membership of the Organizing Committee which first outlined the functional needs of the new Royal Melbourne Hospital (an outline later much modified by financial considerations) gave me one opportunity of representing the requirements of the University of Melbourne in a university teaching hospital.

[1] Delivered at the annual meeting of the Victorian Branch of the British Medical Association on December 4, 1946.

Leave in 1934 allowed me greatly to extend acquaintance with British medical schools, and, through the generosity of the Rockefeller Foundation, I spent seven weeks in a survey of conditions in over twenty medical schools in the United States and Canada.

My views on the relationships which should exist between university and hospitals are defined in the report which was submitted to the Government of Western Australia and has been printed. There is nothing really new in them, but I believe the principles on which they are founded to be so important as to justify frequent reiteration and emphasis. I believe that if we in Australia are to keep abreast of medical progress we must apply those principles rigorously. Where they have been faithfully applied they have been outstandingly vindicated and there need be no qualms about their acceptance. No system will succeed if inspiration be lacking, but that has never been the case in Melbourne.

It is anomalous that a school of the size and repute of that in Melbourne should still lack chairs in major clinical subjects, but the deficiency has been offset by the effectiveness of the electoral college system of selection of the staffs of teaching hospitals. Virtually the Electoral Colleges, on which the University is represented, determine the teaching appointments in the clinical schools of the University and permit an insistence on standards of post-graduate attainment that have ensured maintenance of high quality in the instructors.

The absence, too, of university clinical departments with a research responsibility has been compensated for in some measure, though not conspicuously in the clinical field, by the successful development of two institutes of research closely linked with teaching hospitals, and, notably from the beginning in the case of the Hall Institute, with the University. The urge to research activity has found further expression in the appointment of the Director of one of these institutes to a Research Chair of Experimental Medicine and in the subsidy by the University of a department under his care. Still more recently the appointment of officers with whole-time research duties in clinical medi-

cine in the Royal Melbourne and the Children's Hospitals gives evidence of an awareness of a need and example of a capacity to meet it that augurs well for the Melbourne school's progress.

In the post-graduate field the recent successful revival of the activities of the Melbourne Permanent Post-Graduate Committee gives point to the general problem of assisting the profession to keep effective touch with changing medical thought and procedures. At the same time this committee has assumed responsibility for the coordination of the means of providing advanced instruction for graduates—an attempt to bridge the widening gap between the minimum qualification and a satisfactory competence in a chosen field of medical activity.

Here is the difficult transition; and the burden ever falls on the same group of devoted clinicians—men in busy practice, on the honorary staffs of the public hospitals, the teachers of the undergraduates. They essay a task which is fast becoming impossible. The field of clinical science remains untilled.

Historically, as Mr. Zwar has recently reminded us, those who were enthusiastic for the formation of a medical school in the early days, particularly Mr. Robert Knaggs, a medical member of the committee of the Melbourne Hospital, found indifference or hostility to clinical teaching in two quarters, the staff of the hospital itself and the University. The University was, with difficulty, persuaded of the desirability of placing clinical teaching on a sound basis, but the responsibility for effective action was bandied back and forth between the Hospital and the University till as late as 1910. Hospital provision, medical schools and the training of doctors have undergone great development since 1864. Nevertheless I think it would be true to say that we see today a modern replica of that situation, for the staffs and committees of management of the hospitals have a very conservative attitude with regard to their relationships with the University, and, although the University has on record in the minutes of its Council a resolution affirming its acceptance of the policy of establishing chairs of medicine and surgery when it should become practicable, and has even an agreement with the Royal Melbourne Hospital concerning the availability of land on which to build departments of a medical school in direct communication with the wards of the Hospital, it is over ten years since that affirmation was made and such clinical developments remain a pious hope.

After a long prologue the stage is set for the development of more direct participation of the University in clinical activities, but the curtain has yet to go up on the first scene.

The clinical repute of the Melbourne Medical School owes everything to the quality of the service that the leading members of the profession have rendered both to the charitable institutions of the community and to teaching on behalf of the University. They have borne the whole burden of those two functions in a fashion of which they have every reason to be proud.

But the very use of the word "charitable" is an indication that the system is out-moded in the circumstances of modern social economy. The University has provided satisfactorily for pre-clinical studies, but it has been content to continue to farm out to honorary staffs of the hospitals the clinical instruction of the medical students to whom it later grants degrees.

The State determines whom it will allow to practise medicine, and registration is not universally confined to those who have undergone what may be described as an orthodox general medical training. A medical school is usually thought of as a place where doctors are trained, and historically this has been done in various ways with and without acceptance of primary responsibility by a university. Universities have principally concerned themselves with the basic sciences, and, as they grew in importance, with those medical studies which, though requiring laboratory provision, did not require the presence of patients. Instruction in the practice of medicine on the other hand grew necessarily in the hospitals, where the emphasis is on the patient and on the cooperative charitable activities of the profession and organizations of citizens providing for the care of the sick poor. The doctors gave their skill; the citizens provided bed, board and nursing; the students served some sort of apprenticeship.

The quality of the charitable provision has waited always on the public purse, on private generosity, and on the growth of the civic sense of responsibility in matters of hygiene and provision for the sick.

Boards of management which administer funds inherit, perhaps inevitably, the mediæval charitable outlook on the function of hospitals, and the machinery set up by municipal and State organizations controlling such provision reflects the same attitude in them. Indeed there is little evidence that the medical profession itself within the hospitals, even those with teaching responsibilities, is more than uneasily aware that at least teaching hospitals in modern times should have other functions, and that the dominance of the charitable idea is an inheritance from the dark ages.

It is perhaps less surprising that the University should hesitate to accept responsibilities in a field which hitherto has been recognized only as one of the community's charitable concerns. Indeed its entry in that field is apt to be regarded as an improper intrusion. What has the University to do with the treatment of the sick? Boards of management and University councils may both look upon the suggested move a little strangely. But the purpose of hospitals has changed in emphasis, and those which accept responsibilities for medical instruction find themselves called upon to provide more and more for the extension or renewal of medical experience, and for the investigation of disease as well as its treatment. The full implication of these added functions and responsibilities must also be recognized by the community at large and by its government.

Whose really is the medical school responsibility in the clinical field, the university's or the hospital's? While both forms of direction have been tried, the duty of instruction falls always upon the medical staff and the hospital machinery must be used. The function of instruction and research obviously belongs to the university and its machinery requirements overlap with those of the hospital. The hospital's aim is the treatment of the sick, and the university's the attack on disease. The staff must combine both functions and achieve efficiency in both.

The staff is indeed the staff of the medical school, with the same relationship exactly to the school authority that the staffs of university departments have to the university, and the obligations of that relationship should be fully recognized by the university. That members of the staff become honorary officers of the hospital is a necessary condition of their university function.

But what appears as the crux of the university's clinical problem is this; that charge of a university department of medicine or surgery is a full-time occupation and that such departments must, in all the clinical schools and their subdivisions, have many full and part-time officers, amongst whom the duties of undergraduate and post-graduate teaching, of research, and of treatment will be suitably distributed.

Let me quote from my Report to the Government of Western Australia on the establishment of a medical school from the section entitled: "Hospital and University Relationships—Staffing and Management":

> In this relationship the hospital takes on new functions. It becomes in addition a School of Medicine and a Laboratory of Research into human disease. The teaching of the principles of Medicine goes on alongside the finding of new knowledge and of better ways of doing things, and the objective of ensuring the best treatment of the patient is merged with that of the attack on the problems of disease.
>
> The members of the Professorial Units become members of the staff in a teaching hospital. Other appointments to these staffs are also in effect University appointments and the men appointed must have the necessary qualifications to teach.
>
> Virtually the University undertakes the medical staffing in each of the hospitals concerned and management becomes the management of a University hospital.

Under the heading "Type of Medical School" appears the following:

> The days when medical schools were developed as a subsidiary appendage to the activities of a hospital are

gone. The history of the development of medical education in Great Britain shows clearly the increasing importance attached to the association of medical instruction with Universities and the progressive replacement of non-University by University schools. The significance of the association of Universities with vocational training, an association familiar enough in Medicine and common in Australia where the Universities are frequently the only source of instruction, even at sub-matriculation standards, lies in the fact that the entry of the University into the clinical field of instruction connotes the recognition by the University that it has a function of research in that field and that the attack on the problems of disease is one pre-eminently belonging to it.

The strength of the attack on these problems must lie in University departments which are an association of research institutes bound together by a community of aim and a range of facilities not attainable in any other association.

The laboratories of the University in the clinical field are the hospitals with which it becomes associated. Not only must University units be accommodated in those hospitals both to carry out investigation and to teach but the whole of the medical personnel in charge of the medical care of patients in these institutions, whether honorary or not in respect of their care of the sick, must be teamed up with these units for purposes of instruction, both undergraduate and post-graduate, and for the pursuit of inquiry into both the individual and the general problems presented by the patients in the institution.

Moreover, the whole of the organization of the institution, its management and its finance and the nature of its accommodation—laboratory and other diagnostic and treatment facilities, its records and its follow-up machinery—must be co-ordinated to serve, to the fullest extent, the University aim.

The hospital exists primarily for the care of the sick. The University aim is the scientific attack on the problems of disease which the patients present. The success of the University aim does far more than ensure the primary purpose of the hospital, to the great benefit of the patients of such an institution. For this reason University hospitals' activities cannot be limited in their scope to what unguided philanthropy sees fit to provide for the poor, nor can such a conception be allowed either to dominate or in any way to hinder the development which permeation by a University medical school demands. The administration, medical and nursing service and the University form in this development a unit with the one purpose and for the achievement of this purpose the full co-operation of the public and the patient is essential. The people must know that it is their hospital, their University and their medical school in whose success they will play no insignificant part. It expects their co-operation and it will look for their support.

The medical school has ceased to be a place where students receive instruction to provide them with a qualification which is the minimum standard acceptable by the State from those whom it registers as fit to take the responsibility of caring for the health needs of its citizens.

The University is not a glorified high school. The prominence of teaching in its activities is due to the fact that instruction in the higher fields of learning is best carried out where the urgent stimulus to research is in most active operation. That is why people come to seats of learning; it is why there are Chairs in the branches of learning. If it were a high school it would be proper and much cheaper to sack the professors.

The entry therefore of University ideas and practice into a hospital can only succeed if they are given free play and exercise an effective directive influence on the whole of the activities of the institution.

If this be accepted, the patient need not fear he will receive more expert treatment than in any other circumstances.

The fact is that medical practice has changed and is changing; at times the change has been gradual, at other times extremely rapid, now at this point, now at that. It is the result of what Sir Alan Newton has called the mechanization of medicine. But it has much more significance than mere aid to diagnosis. Not only do all these weapons lend accuracy, precision and control to the clinician's armamentarium, supplementing it and enormously increasing the power of the clinician to benefit the patient, but they are at the same time important weapons of research and of corresponding significance to the more general attack on the problems of disease.

It is all very well to advance the criticism, as many do, that the modern medical graduate is lost without the laboratory machinery to whose use he has become habituated in the course of his experience in a modern hospital, or that he lacks the clinical acumen of his predecessors and is less resourceful and less able to meet the emergencies for which he must be prepared when practising in comparative isolation. I challenge the statement and do not believe it to be true, since the clinical sense, if the appropriate checks of modern methods are properly applied, should become correspondingly more accurate. Without these aids less than justice must be done to the sick and less than justice to the capacity of the medical attendant.

Except for minor complaints, illness is leaving the home for good. For many years the drift has been setting in the direction of the concentration of practice in hospitals. Not only has the patient been driven to the hospital by the exigencies of the domestic and nursing situation, but the practitioner is forced to seek aids in his diagnostic procedures which he himself has not the time, the space, the equipment, or perhaps the technical skill to carry out; frequently not even the knowledge to interpret the results. He is much less independent than he used to be. He must seek the assistance of others who devote themselves specially to such work. A modern hospital, public or private, provides such aids for the benefit of its patients and is in a better position to provide the complete range of such assistance than can reasonably be expected of any independent medical man. Such facilities in consequence bind medical practice ever more closely to the hospitals.

The nursing, the diagnostic and treatment aids are there to hand; they are absent from the home. The conditions of war have but accentuated the domestic difficulties and accelerated the drift. If we cannot build homes fast enough, we also cannot build hospitals fast enough.

Medical consultation is less and less conducted in the home, more and more in the doctor's consulting room. To function effectively the doctor needs the laboratory and other facilities which only the hospital can readily provide. The logical place for the patient to see the doctor is at the hospital, and it is there or near it that his consulting room should be. Moreover it is a corollary of modern development in medicine that hospital provision should be for the whole of the community, for all its citizens, not only for the hypothetical poor.

How the patient pays or is paid for is a matter of detail subsidiary to my present theme, but, in respect of the relationship of the medical school to hospital, payment of teaching and research officers should be made by the university.

It was foreign to the tradition of the British medical schools to conceive that medical teaching and investigation might be a full-time occupation for a medical man. Traditionally in the English schools instruction was given by medical men in general practice, frequently serving more than one hospital, usually men whose prestige in the school and success in private practice were closely correlated. Under that system there have not been lacking men who were great teachers and great investigators and at the same time great in the practice of their profession. But they stood out in spite of the hindrances of practice, not because of the system, and were often a curious blend of social and scientific prestige.

Medical men must be trained, and there is a consensus of opinion on the value of the essentially scientific nature of the pre-clinical training, and the emphasis on university standards and the university outlook on investigation has steadily increased.

It is the conviction that medicine can properly be regarded as a science, that the scientific outlook is quite as important in clinical teaching and research as in the pre-clinical subjects, and quite as capable of yielding results of the greatest significance to human welfare, that is fundamental in the argument for the concentration of whole-time effort on its scientific study. It is an outlook which, with the close association of laboratories with clinical work, was responsible for the rapid growth and long predominance of German medicine in Europe. It is the outlook which, in

like circumstances, is responsible for the growing predominance of American medicine today.

The function of a university department in any subject is to give instruction and to undertake original work in the field of the subject. If it were engaged only in dispensing to pupils accumulated human knowledge, there would be no need to provide for original work. The appointment of professors or research workers would be unnecessary and wasteful, but the institution would cease to be a university; it would cease to make contributions to human thought.

A purely research professor need have no pupils; he takes other means than the delivery of lectures of imparting the results of his thinking or investigations. But a university department normally has both co-workers in research and students and instruction thrives in that atmosphere. Experience proves the conjunction to be fruitful. It is the university's function to give the investigator the opportunity to investigate, the pupils to be taught and both functions to be developed together or separately, since a good teacher may not necessarily be cut out for investigation or a good investigator be necessarily a good teacher.

The English type of medical school inherits an excellent tradition of bedside instruction. The practitioner is experienced in the practical problems of handling patients and the practising profession is naturally loth to countenance any change that will diminish the undoubted advantage of instruction by men with that experience. In any suggested modification of medical school instruction it is essential to preserve that art amongst the things taught, and therefore to retain as an integral part of the team of instruction, men actively engaged in private practice. Nevertheless, the full range of clinical teaching, clinical investigation and the profession of the subject in any true university sense is unquestionably a full-time occupation. Successful within limits as the Melbourne method has undoubtedly been, there is no teacher in the school but is profoundly conscious of the serious defects in coordination that are inseparable from the system, of the sense of frustration that accompanies the lack of opportunity or facility to pursue investigation or to direct it, of the difficulty of giving even reasonable attention to the patients nominally under his charge, or doing justice to the training of the resident staff, or of benefiting from conference with his colleagues particularly in other departments (whether on medical problems or the problems of teaching), or of reading or of finding leisure for the reflection necessary to preserve reasonable continuity of thought.

But if it is a function of the university to conduct investigation in the clinical field, as the establishment of departments would definitely imply, the teaching hospital is not only a place in which the sick are treated, but a place where disease is investigated by men with experience to recognize the problems and the technical skill to investigate them. It is a corollary of this university activity that the associated hospitals should contain the accommodation and facilities to enable officers appointed for the purpose to carry out these duties.

The idea of a university hospital is not new and the establishment of such a hospital has frequently been mooted in Melbourne. The building of the Royal Melbourne Hospital on its new site had more than the existing physical juxtaposition with the University in mind when the transfer was undertaken. The possibilities of such a conjunction are lamentably slow in realization. But the Victorian School has at least five main hospitals in which it is essential that this relationship between University on the one hand and clinical teaching and research on the other should be established.

It needs but little reflexion to make it obvious that the full participation of the University in the clinical activities of the medical school involves both a new orientation of the staffs and boards of management of all the hospitals engaged in teaching to the University, and of the University to the implications of its association with a properly functioning modern medical school.

It is not to be wondered at that the University should hesitate to accept responsibility for clinical departments. If these are to be properly staffed, equipped and maintained and honorary services dispensed with, the annual additional cost for a school the size of that in Melbourne, with an output of 80 to 100 graduates a year, would be anything from £20,000 to £40,000 or even more, according to the scale of its development, while the capital outlay on University building would be from £100,000 to £150,000.

The University of Melbourne has already a very large administrative responsibility. Such an addition represents an increase bearing a very high ratio to the total University budget. The implications also for the associated hospitals represent no small commitment and the whole would be a very large undertaking, towards the running expenses of which the income from fees would provide a very small contribution. It is nevertheless the price we must pay if we are to play the part proper to a medical school of this size in the advancement of medical science, and if the community is to derive the full benefit of its presence.

It is not only the advancement of undergraduate teaching that is the concern of the medical school. There must be clear recognition of the fact that medical training proper does not end with the provision of a minimum qualification for medical practice. The point reached for the conferring of a bachelor's degree marks only the beginning. It is reached at an age (on the average twenty-five years) when the necessity of earning a living, setting up a home and possibly repaying loans, precludes further training except under the most adverse economic conditions. Those who can afford it spend further years in intensive study. At present there are far too few posts in which young men can obtain sufficient post-graduate experience.

It is commonly stated that the medical course is too long. Is not the fact rather, that it is much too short and that the only thing unreasonable about its length is the cost of necessary further apprenticeship? Obviously any extension that can be contemplated must be in circumstances in which it is possible to earn while continuing to learn under competent guidance. The virtues of throwing a child into the sea to teach it to swim are, even after many excellent lessons on dry land, open to doubt; as a training for life-saving the method has nothing to recommend it.

A compulsory hospital year is a good thing if the experience is gained under competent guidance. It is more than a little doubtful who can benefit if it is not. The responsibilities that are thrust on recent graduates are frequently fair neither to the doctor nor to the patients he is called upon to treat. It is particularly worthy of attention that responsibility for the necessary supervision extends well beyond the confines of undergraduate teaching hospitals.

Without such clinical developments in the medical school there are not the posts or the salaries that will permit a man to seek training for practice, teaching, or research and at the same time set up a home. Careers in teaching, research or specialization are possible only by a tightening of belts, a scorning of delights and even of obligations with the certainty of a long vista of laborious days for a precarious guerdon.

The establishment of such clinical extension to a school, if on an adequate scale in respect of the number of posts and size of salaries, not only goes a long way towards the solution of the problem presented by this intermediate phase in medical training, but incidentally provides the machinery for refresher training and for maintaining standards of medical practice at a high level for the general body of practitioners.

Nor is this by any means all, for through such vigorous and healthy activity in the medical school hospitals and through its impingement on departments of health all the other aspects of social well-being dependent thereon must be correspondingly stimulated. The benefits to be looked for are not narrowly confined to either medical school or teaching hospitals, but must penetrate into and permeate the whole health organization of the community and greatly enhance its effectiveness. It is well to emphasize this broader aspect of medical school development, for, large though the outlay seems in pounds, shillings and

pence, it is small compared with the general benefits that must accrue from such a release of potential energy.

What can be done by such release of energy we have recently had reason to realize in the conditions of war. We have no reason to expect less from the application of similar principles in the conditions of peace. It requires courage and imagination to take so momentous a step and there will necessarily be a temptation to reach the goal by more gradual means, but it appears to me that such counsel is pusillanimous. The delay that has already taken place has only enhanced our difficulties and is not a little responsible for the explosive nature of the crisis which has been forced upon us by the civil demand for better medical attention.

Some other body, say the staff of a hospital, might undertake the organization of a medical school. But if a medical school is to be successful, the adoption of university aims, ideals and methods is essential, and such a medical school would not improve the clinical teaching unless its officers devoted the whole of their time and energy to a realization of just those aims and ideals. The danger of such a body is the limitation of outlook imposed by the dominance of the idea of practice rather than investigation. Practice is the application of knowledge already won and therefore static in outlook; investigation is dynamic; the conditions of advance for both are therefore clear. Practice is for the present, investigation for a better present. Practice may be excellent by present standards, investigation replaces those standards by still better ones.

But what of the patient in the change suggested? Clearly he comes off better than ever before. Our institutions "for the sick poor" are the natural laboratories of clinical experience. They lose their mediæval character and become foci of clinical teaching and research by reason of the concentration of human material, of medical skill, of equipment and services. Hence it comes that there is available to "the poor" without personal cost a kind of medical service which is available only at great cost, with difficulty, or perhaps not at all, to those of moderate means or even wealth. With exceptions, notably in America, private hospitals are seldom so well served as the great public hospitals. As things are, only large hospitals can command the services required in modern medicine.

Since teaching hospitals to be efficient must not only command the best medical talent, but possess all the best equipment and all the accessories that provide a full range of experience for medical scientific activity, even considered as hospitals for the treatment of the sick they must be more expensive to run than others less well furnished. This fact and the addition of other university functions therefore completely alter the perspective of the boards of management. The well-being of the patient is automatically safeguarded; the attack on disease becomes the dominant purpose of the medical school hospital and fully as much the concern of boards of management as of the university.

Let me quote again from the Report to the Government of Western Australia:

> The Managements are asked to extend their function and join with the University in providing for teaching and research as well as the treatment of patients. In so doing they agree to:
>
> (*a*) appropriate University representation on the Board of Management;
> (*b*) admission to the Hospital of students admitted to the Medical course;
> (*c*) the acceptance of Officers of University Departments as members of the Staff of the Hospital with responsibility for the treatment of patients;
> (*d*) the direction by the University units (under the Faculty) of all matters relating to teaching and research;
> (*e*) the virtual appointment and payment by the University of other Medical Staff, after recommendation by an Electoral College of the Hospital and the University;
> (*f*) the admission of patients on condition that they agree to co-operate in the teaching requirements (including post-mortem examination unless objection is made);
> (*g*) to co-ordinate all hospital machinery and to make available all necessary nursing, diagnostic, record, follow-up and other facilities and to develop them to the degree and standard required;
> (*h*) the provision of all necessary accommodation for instruction in hospital departments, including that for residence of students, undergraduate and post-graduate, and for the general comfort of students and staff;
> (*i*) action in common on disciplinary matters affecting students in the Hospital.

In these circumstances it is essential that the dominance of the purpose of the attack on disease should be recognized and that the university in consequence should be strongly represented on and make common cause with the boards of management. The university must, through its clinical departments, have effective directional control of the whole of the hospital resources (in-patient, out-patient and laboratory) for clinical teaching and research. Practising members of the honorary staff in such a public hospital may retain their honorary status *vis-à-vis* the patient, but are part of the teaching team and may take part in the direction of research. They should be paid on a sessional basis for their university services.

The variety of work within the ambit of the university clinical departments and the maintenance of a proper flexibility in the nature and sequence of appointments to their staffs should ensure to their members a width of experience and an opportunity to develop talent that can scarcely be expected under the existing system.

The pathological services afford a very good example of the complacency with which a preoccupied profession will long make shift with inadequate facilities even for routine.

Time was when the practitioner made his own tests and even might do his own autopsies, but the diagnostic aids in the fields of morbid anatomy, pathological histology, biochemistry, bacteriology, histology, serology, hæmatology and radiology have so multipled that the practitioner cannot expect to cope with them, yet cannot practise his art without them. The attitude even of the profession to the pathologist is odd; he is a consultant who must spend a long apprenticeship to gain the experience and technical skills that make him worth consulting, but the profession apparently grudges him a living and will countenance the employment of any substitute or none. Even in hospitals well-paid posts are few and hence stepping-stones to a career are lacking. Quite large hospitals provide no adequate quarters for him to work in and can hardly be persuaded to employ his services part-time. Any half-trained girl or boy who can cut sections and stain them, however indifferently, will do, though the boy knows as little about the result as the practitioner. Research is of course alien to the existing hospital conception of charitable provision.

Yet no public hospital calling itself modern can pretend to that status and admit one patient without a full range of such service. (In America hospitals even of 100 beds may command such a service.) The pathological laboratories are, or should be, the hub of the hospital, a check on both diagnosis and treatment. They are essential to clinical work and to clinical research; they are as necessary as kitchens, and the pathologists and their assistants as cooks. Without them the professional men practising within its walls are ham-strung and it may well be held that the management is not doing its duty by the patients.

It is difficult to count the cost in lives, well-being or safety. Provide such a hospital with apparently ample pathological facilities as has been done in Melbourne recently and they are inadequate in under five years, and the costs will jump from next to nothing to £10,000 a year in the same period. Five years ago we did without it; even now it is insufficient—was it then unnecessary? The management has to count the cost. Who will tell them that they are getting a proper return? If the demand on the services is any criterion, it is hardly to be wondered at that the provision of such services is in the forefront of political propaganda. Must we wait until we are pushed around and put in our places by laymen before we waken to the situation?

The practising profession and the public want such services, but they both want them "free". The symptom

of the resulting malady is ultimately a pain in the income tax. This disease has other symptoms, but there is no cure. If we want these things we must pay for them; in the last analysis we must work for them. Perhaps there may yet be careers for pathologists; perhaps some day they will be adequately paid and the profession have at its disposal the assistance necessary to enable it to do itself and medicine justice.

What can you expect when a senior surgeon, thoughtlessly no doubt, asks apropos of the equipment of a hospital, "What do you want a laboratory for? With a knife, penicillin and a few sulpha drugs, there is no need for a bacteriologist". I do not suppose he meant it, but he should not have said it. He was more than half serious.

Who is to blame for this attitude of the profession to the pathologist I do not know. Probably it is the professors of pathology. Let us castigate them; they are very few and not very vocal.

Another major defect of our professional scientific relationship of vital import to clinical investigation is the inadequacy of record and the absence of follow-up. The skills which constitute the art of the surgeon, physician, bacteriologist, histologist, technician, are personal and register only in his tissue memories. There is no escape from their ephemeral character, no means of transmission but imitation by the pupil. But the absence of record, and more importantly, of the analysis of records of observations made in hospital and practice is a hiatus scientifically inexcusable. There is little machinery for converting more or less, chiefly less, reliable impressions into a body of statistically assessable facts. In no field is correlation more fruitful than in that of clinical and pathological observations. In no field is the difficulty greater in practice than of obtaining essential clinical information to make pathological assessment of real value as experience. Sir Richard Owen, in England, from a few bones found in New Zealand, accurately deduced the skeletal form and habits of a bird which no living human being had seen, a most notable scientific *tour de force*. *"Ex pede, Hercules!"* But a pathological histologist would be confidently expected to identify the god from a few skin fragments.

I use the example of clinical correlation with the pathologist, but the principle is general. Such correlation is the essence of the scientific clinical attack on disease. In its proper use lies the essential difference between providing a hospital for the treatment of the sick, and advancing the science of medicine. It is the only hope of the improvement of practice; it is not the only objective of a medical school, but the application of the methods of science is the basic justification of university participation in clinical teaching and investigation.

The present hospital association is little more than that of an affiliated technical school, admirable in its way, capable of attaining a certain perfection but essentially static in its clinical provision and in any case a shameful waste and neglect of human scientific potential.

In Melbourne, though we take pride in their excellent contributions to medical knowledge, often clinically applicable, the presence of scientific institutes or research departments using other than clinical techniques does not sufficiently bridge the gap between university and clinical school.

Similar developments are seen in the English and French systems, where individuals may do research and independent institutes may arise in which no undergraduate teaching is done, in which all the experience is at graduate level and not confined to the field of human medicine; clearly performing a university function *minus* its undergraduate teaching responsibilities. But it is equally clear that something is lacking from the full development of medicine if similar methods are not applied to the investigation of disease in human patients, and the principles of science do not permeate the wards.

Here is an array of disease experiments on the ideal experimental animal, for which there is no possible substitute. Here is the clinical investigator's laboratory. Unless we are to confess the clinical approach bankrupt as a technique for research, it is incumbent on a medical school with a university association to make that technique yield dividends to medical science.

I have indicated in outline how I think it can be done. I am firmly of opinion that if it is to be done rightly it is properly a university undertaking. I am equally convinced that there can be no half measures if the University is to participate.

Finally I am satisfied that it should be done, and that the University of Melbourne and its associated hospitals should be encouraged to take a step which has more significance for this school and medical services generally than any taken since its foundation. In this encouragement opinion in the profession can play a strong, probably a decisive part, for lay administrators and the Government will necessarily look to us for guidance.

THE SIGNIFICANCE OF THE WIENER CONGLUTINATION TEST IN THE DETECTION OF BLOCKING ANTIBODIES.

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IN a previous communication, the methods used for routine testing for the Rh factor and Rh antibodies have been described, and certain difficulties which have arisen as the result of recent publications from America and England were mentioned. The purpose of the present paper is to discuss these difficulties and attempt to work out a logical solution for practical purposes.

During 1945, papers by Wiener,[2] by Diamond,[3][4][5][6] by Race and co-workers[7] and by Boorman *et alii*,[8] have contributed interesting advances in the technique for the detection of Rh antibodies, particularly those of the blocking type, and for their quantitative estimation.

Wiener[2] described the conglutination test, in which normal compatible human serum is substituted for saline solution, as the medium, not only for red cell suspension, but also for the dilution of any anti-Rh serum of which the titre is being estimated. By this method serum containing blocking antibody will cause agglutination of Rh-positive cells both in tube and in slide tests. Wiener claims that this reaction is similar to that observed when red blood cells or bacteria, after having been sensitized by their specific antibody, show a pronounced cohesive and massy clumping, if they are then treated with bovine serum. The effect is said to be due to secondary molecular adhesion caused by a colloidal substance, probably a globulin, which is present in bovine serum.

Earlier in the year Diamond[3] described a slide test using heavy red blood cell suspensions (50%), by which he claimed that agglutinating antibody could be detected in the presence of an excess of blocking antibody. He suggested that the blocking antibody became attached to a proportion of the red blood cells, but that a sufficient excess remained to be clumped by any agglutinating antibody present. Wiener was unable to repeat these experiments satisfactorily; but later, when he substituted serum for saline solution as the suspension medium, clumping of the red blood cells resulted. Wiener therefore holds that Diamond's test is really a conglutination reaction due to the action of colloidal substances in the serum on the red blood cells which have been added to anti-Rh serum containing blocking antibodies. He thinks this is a more logical explanation than that advanced by Diamond.

Coombes, Mourant and Race[7] question Wiener's designation of this reaction as "conglutination", on the grounds that conglutinin has not been demonstrated in serum other than that of ruminants, and that the phenomenon is dependent on the action of a conglutinating complement which is destroyed by heating at 56° C. for half an hour. Conglutinin has an observable action on cells sensitized with antibody only when they have also been exposed to "conglutinating" complement. Wiener states that his test works equally well when the human serum used as the diluent has been subjected to heat at 60° C. for half an hour. This temperature would be sufficient to destroy any conglutinating complement

present. Coombes, Mourant and Race suggest that *Wiener's test is more akin to that recorded by Waaler*, who observed in human serum a factor which greatly increased the specific agglutination of sheep's cells by *immune serum. This substance was also thermostable* when kept at 60° C. for half an hour. However, these *authors feel that although the actual clumping of cells* in Wiener's test and in the conglutination phenomenon may be due to similar colloidal environments, the *serological methods by which these conditions are brought* about are so different that confusion in terminology will result if Wiener's test continues to be termed a conglutination test.

Wiener[9] defends his use of the term by stating that *"coagglutination" is applied by other workers to a* phenomenon obviously identical with mixed agglutination, and states that one would expect this to occur in *conglutination in which the second stage is non-specific.* In agglutination involving bivalent antibodies the second stage is specific, and coagglutination or mixed agglutination does not occur.

Boorman and collaborators[6] have shown that the *immune iso-agglutinin titre is considerably increased* when human serum is used as the diluent, whilst the naturally occurring iso-agglutinin titre remains the same whether the diluent is saline solution or human serum. They found that the size and firmness of the masses of *agglutinated cells were more pronounced when serum was* used as the diluent. Frequently the limit of agglutination in serum is extended only one or two tubes beyond that obtained in saline solution, although in one instance the titre was raised from four to 256 with one very effective specimen of serum—that is, a difference in titre of six tubes. Boorman *et alii* thus observed that there was a *pronounced variation in the power of different human sera* to amplify the immune agglutinin. The factor in serum which caused the effect was not complement, since it was *not destroyed by heating at 56° C. for half an hour, nor by* freezing for many months. The effect was also not due to *the viscosity of the serum.* They concluded that the use of the "serum enhancement" technique *established beyond* doubt the presence of Rh agglutinins in weakly reacting *serum obtained from the mothers of babies which have* suffered from hæmolytic disease of the newborn. No mention is made by these writers of the possibility that blocking antibodies are really being detected in such tests.

Diamond and Abelson[6] detected inhibitor substances *when trying to pool anti-Rh sera in 1943. Loss of activity* was observed when a potent anti-Rh' serum was added to an equally potent anti-Rh_0 serum. Later, discovery of the blocking antibody explained *this effect. These workers* have applied Wiener's "conglutination" technique to *determine the titre of blocking antibodies.* First, serial dilutions of the anti-Rh serum in saline solution are titrated with red blood cells suspended in saline solution. *The end point gives the titre of the agglutinating anti-*bodies. Secondly, serial dilutions of the anti-Rh serum in homologous serum are titrated with red blood cells suspended in serum. The end point to this titration gives the total antibody titre. The concentration of the blocking

TABLE I.

Correlation of Rh Agglutinins and Blocking Antibodies in the Four Anti-Rh Sera Chosen for Study.

Fluids Tested.	Agglutinin Test: Group O, Rh-positive Cells.		Blocking Test: Dilutions of Potent Anti-Rh Serum, Group O, Rh-positive Cells.					
			1 : 4.		1 : 8.		1 : 16.	
	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)
Saline control	—	—	3[1]	4[1]	4	4	3	3
Serum (*a*)	w[1]	1[1]	3	3	4	4	3	3
Serum (*b*)	1	2[1]	3	4	2	4	3	3
Serum (*c*)	w	w	2	2	1	2	1	1
Serum (*d*)	—	—	—	?	—	—	—	—

[1] w: very slight reaction; 1, 2, 3, 4: increasing degrees of agglutination.

TABLE II.

A Comparison of the Titre of Rh Antibodies in Four Different Anti-Rh Sera; Tube Tests.

Anti-Rh Serum.	Diluent and Suspension Medium.	Titre.[1]									
		Concentrated.	2	4	8	16	32	64	128	512	1,024	2,048
Agglutinins only.	(i) Saline solution ..	2	2	1	—	—						
	(ii) Serum	2	2	2	2	1						
	(iii) Serum	2	2	1	1	—						
	(iv) Serum	2	2	2	1	—						
	(v) Serum	2	1	1	—	—						
	(vi) Albumin	2	2	2	1	—						
Stronger agglutinins.	(i) Saline solution ..	3	2	1	—	—	—	—	—	—	—	
	(ii) Serum	3	2	2	2	2	2	2	1	1	—	
	(iii) Serum	3	3	3	3	2	2	1	1	1	1	
	(iv) Serum	3	3	3	3	2	2	2	1	—	—	
	(v) Serum	3	3	3	3	1	1	1	—	—	—	
	(vi) Albumin	3	2	2	2	2	1	—	—	—	—	
Agglutinins of very low titre and blocking antibodies.	(i) Saline solution ..	1	—	—	—	—	—	—	—	—	—	
	(ii) Serum	3	2	2	2	2	2	1	1	—	—	
	(iii) Serum	3	2	2	2	2	1	—	—	—	—	
	(iv) Serum	3	2	2	2	2	2	2	—	—	—	
	(v) Serum	3	3	2	2	2	2	—	—	—	—	
	(vi) Albumin	3	2	2	2	2	2	2	2	2	2	
Blocking antibodies only.	(i) Saline solution ..	—	—	—	—	—	—	—	—	—	—	—
	(ii) Serum	3	2	2	2	2	2	2	2	1	1	1
	(iii) Serum	3	2	2	2	2	2	1	1	1	—	—
	(iv) Serum	3	2	2	2	2	2	2	1	1	—	—
	(v) Serum	3	2	2	1	1	1	1	1	—	—	—
	(iv) Albumin	3	2	2	2	2	2	2	2	1	—	—

[1] 1, 2, 3 indicate degrees of agglutination.

antibodies can be determined by difference. These workers[6] decided that unpredictable rouleaux formation which complicated the reading of this test, and the need for a constant source of group AB serum, were undesirable features in this method of testing. They tried various media for dilution and suspension purposes, and finally found that 20% human or bovine albumin in isotonic or hypertonic saline solution was satisfactory. Rouleaux formation was completely eliminated, and firmer and more distinct aggregations were obtained by this modification of Wiener's test. Diamond and Abelson were able to demonstrate the presence of blocking antibody in the serum of a woman, aged sixty years. This patient had lost three infants with jaundice, œdema and anæmia, the last of these children having been born thirty years previously.

Decision as to which of the theories advanced by the authors cited is likely to be finally accepted is outside the scope of this paper. However, several points of difficulty have arisen in the application of the proposed modifications in the tests for agglutinins and blocking antibodies. First, there is the question of what degree enhancement of agglutinins can be produced by the use of different sera or albumin. Secondly, how can one distinguish enhancement from the agglutination produced by blocking antibodies in conglutination tests? Thirdly, how can one determine the exact titre of any anti-Rh serum, since this may vary in relation to the diluent used?

These questions are of some importance, since Wiener and Diamond hold that the presence of blocking antibody in the mother's serum in the ante-partum period indicates the probability of a most unfavourable outcome to the pregnancy. Since early in 1946 we have been using Wiener's conglutination test (slide method) to detect the total Rh antibodies in the serum of all Rh-negative mothers. When agglutination occurs, the serum is tested with group O, Rh-positive cells suspended in saline solution and also with the same cells suspended in serum under the same conditions. Frequently no visible agglutination of the cells suspended in saline solution occurs, but those suspended in serum are noticeably clumped. In some instances this clumping does not occur if the anti-Rh serum is diluted to any degree with serum. The question then arises whether the antibody so detected is blocking antibody (glutinin), or whether agglutinins in low titre have been detected by enhancement produced by the conglutination technique.

Experimental Investigation.

In order to try to clarify the situation, four sera were selected for study; they were tested with six different media for dilution of the anti-Rh sera and suspension of the group O, Rh-positive test cells. These four anti-Rh sera respectively contained (*a*) weak agglutinins only, (*b*) stronger agglutinins, (*c*) agglutinins of low titre and blocking antibodies, (*d*) blocking antibodies only. (See Table I.) The six dilution and suspension media were: (i) Rous Turner mixture, (ii) group AB serum, (iii), (iv), (v) pooled serum, (vi) 20% human albumin solution.

Results.

The results of tube tests are shown in Table II.

In the case of anti-Rh serum (*a*), containing agglutinins only, the titre was not increased to any extent by the use of the different dilution and suspension media. The titre of this serum could reasonably be expressed as 4·0. The titre with AB serum appeared to be slightly greater than that obtained with the pooled serum or with albumin. The results with pooled serum and albumin were almost identical.

Rather different results were obtained with anti-Rh serum (*b*), which contained slightly stronger agglutinins. The total antibody titre was increased with each of the sera and with albumin. The albumin, however, gave no greater agglutination in individual dilutions than in the same dilutions in serum, nor did it increase the titre. Albumin and different sera resulted in titres varying from 32 to 1,024. This involves a difference in agglutination of four tubes in the consecutive serial dilutions and is rather too wide a variation to be completely satisfactory. The question arises in this instance whether the increased titre in the various media is "enhancement" or is due to the presence of blocking antibodies not detected by the blocking test.

In the case of serum (*c*) containing blocking antibody with only a small admixture of agglutinins, the enhancement with all media other than saline solution was very striking. In this test increase in titre with albumin was a noticeable feature.

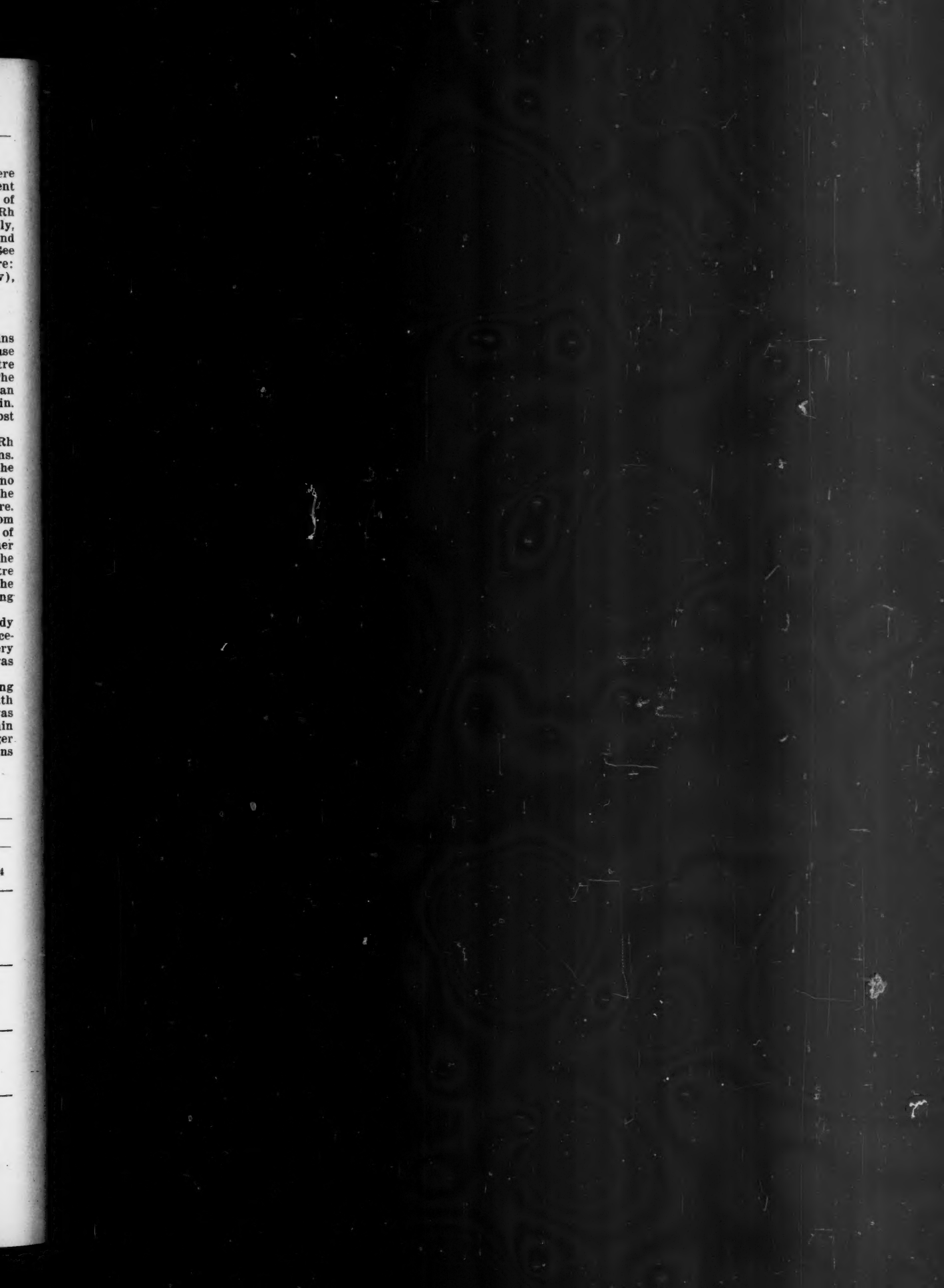
In the case of anti-Rh serum (*d*), in which only blocking antibody was present, no agglutination occurred with saline suspensions of the red blood cells, but there was considerable clumping in all sera and in the albumin media. The agglutination was perhaps a little stronger with albumin than with serum in the higher dilutions used, but the titre was not increased.

TABLE III.

A Comparison of the Titre of Rh Antibodies in Four Different Anti-Rh Sera; Slide Tests.

Anti-Rh Serum.	Diluent and Suspension Medium.	Titre.[1]								
		Concentrated.	2	4	8	16	32	64	128	512	1,024
Agglutinins only.	(i) Saline solution	1	1	—	—						
	(ii) Serum	1	1	—	—						
	(iii) Serum	1	1	—	—						
	(iv) Serum	1	—	—	—						
	(v) Serum	1	—	—	—						
	(vi) Albumin	2	1	—	—						
Stronger agglutinins.	(i) Saline solution	2	1	—	—	—	—	—	—	—	
	(ii) Serum	2	2	1	1	1	—	—	—	—	
	(iii) Serum	2	2	1	1	—	—	—	—	—	
	(iv) Serum	1	2	1	1	—	—	—	—	—	
	(v) Serum	2	2	1	—	—	—	—	—	—	
	(vi) Albumin	2	2	1	1	—	—	—	—	—	
Agglutinins of very low titre and blocking antibodies.	(i) Saline solution	1	—	—	—	—	—	—	—	—	
	(ii) Serum	2	2	2	1	1	1	—	—	—	
	(iii) Serum	2	2	1	1	1	—	—	—	—	
	(iv) Serum	1	1	1	1	1	—	—	—	—	
	(v) Serum	2	2	1	1	1	1	—	—	—	
	(vi) Albumin	2	2	2	1	1	1	—	—	—	
Blocking antibodies only.	(i) Saline solution	—	—	—	—	—	—	—	—	—	
	(ii) Serum	1	1	—	—	—	—	—	—	—	
	(iii) Serum	2	2	2	1	1	—	—	—	—	
	(iv) Serum	1	1	1	1	—	—	—	—	—	
	(v) Serum	2	2	2	1	1	—	—	—	—	
	(vi) Albumin	2	2	1	—	—	—	—	—	—	

[1] 1, 2 indicate degrees of agglutination.



Comment.

Throughout these tube tests the viscosity of the albumin used for dilution and suspension resulted in very slow settling of the red blood cells. This was so great that the results had to be read on the next day. In my opinion these effects make the use of albumin in tube tests of little value; but it is an excellent suspension medium for use in slide tests.

In this series of experiments somewhat varying titres were obtained in individual specimens of anti-Rh serum when different serum and albumin solutions were used as diluting and suspension media. In most instances, however, this variation was not significant. A higher titre was obtained for the antibodies in anti-Rh serum (*d*) (blocking only) when the dilution and suspension medium was group AB serum from one person. When pooled serum was used the titres of the different anti-Rh sera were reasonably consistent.

The four specimens of anti-Rh serum were also titrated on slides, the same diluting and suspension media already described being used. From a comparison of Tables II and III it is apparent that the slide technique is less sensitive. Albumin gave larger and more distinctive clumps than those obtained with serum or saline solution for corresponding dilutions of the same anti-Rh serum. However, the titre was not increased above that obtained by the use of serum as diluent.

The fact that blocking antibody may fail to be detected by the Wiener blocking technique is well illustrated in the case of anti-Rh serum (*b*). Inspection of Table I shows the presence of agglutinins only, whilst a pronounced increase in the titre occurs when albumin or serum is used as the diluting and suspension medium (Table II). By comparison with experiments on anti-Rh sera (*c*) and (*d*), both of which have been proved by the blocking test to contain blocking antibodies, the effect noted in anti-Rh serum (*b*) can be interpreted only as indicating the presence of blocking as well as agglutinating antibodies.

Conclusion.

From these experiments the questions asked earlier can now be answered. It seems certain that, although the use of serum or albumin as diluent and suspension media undoubtedly causes increased titre in the Rh antibodies found in serum containing blocking antibodies, there is no significant enhancement in serum which contains only agglutinins. Slight fluctuations to the extent of one or two tubes should probably not be regarded as evidence of the presence of blocking antibodies. However, increases outside such limits cannot be regarded as enhancement of agglutinins, but indicate the presence of some blocking antibodies. By the pooling of a large number of sera any variations in titre should be reduced to a minimum and a reasonably constant titre of a particular serum can therefore be obtained.

These studies further indicate that serum which shows no evidence of agglutinins, but in which slight conglutination effects are detected, probably contains blocking antibody in low concentration.

From the point of view of application of these tests to routine investigations, the slide technique, although less sensitive than tube tests, is invaluable. When antibodies have been detected by the former test with either saline solution or serum dilution, the ultimate titre of both agglutinins and blocking antibody should be determined by tube tests, the suitable diluent for each type of antibody being used. The decision as to the presence or absence of blocking antibodies is more satisfactorily made from tube tests. These tests should also be applied in special circumstances when clinical evidence suggests erythroblastosis, but when no agglutination or conglutination effects have been detected in the suspected serum in slide tests.

Acknowledgement.

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Reports of Cases.

INGUINAL SPRAIN

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NUMEROUS bony prominences have developed in various parts of the skeleton to give attachment to tendinous fibres that carry tension stresses. These become at times the seat of trauma. When the stress has by some means passed a critical point, something gives way. Some fibres, few or many, may tear away from their attachment, and sometimes a small piece of bone is torn away. These injuries are painful. They are described as sprains, and if bone is torn away, it is called a sprain fracture. If we were engineers we should call them strains.

Some of these injuries are described in surgical textbooks: for example, rider's sprain, a lesion located at the origin of the *adductor longus* tendon on the body of the pubic bone. This got its name from being commonly caused by sudden tension on the adductor, as when a rider grips the saddle to prevent himself from being unseated.

There are, however, much commoner sprains than rider's sprain at the pubic attachment of muscles, but these injuries do not seem to have found their way into the textbooks. I mean sprain of the attachment of the rectus to the pubic crest, and of other muscles to the pubic tubercle, which is the lateral termination of the crest. Through the abdominal aponeurosis, inguinal ligament, and conjoined tendon, the pubic tubercle provides attachment for the external oblique, internal oblique, and transversus muscles.

I think we can describe both sprains together under the single name of "inguinal" sprain. Certainly we can if we use "inguinal" in its original sense, which does not exactly correspond with the groin. The groin is the hollow at the flexure between abdomen and thigh. But the Latin words "*inguen*", "*inguinalis*" apply to the part of the body between the two hips.

I have seen a number of cases of inguinal sprain, but my realization of their nature and importance grew but slowly. I can recollect more or less vaguely cases in the past that must have been examples, but I have forgotten the names of the patients, and cannot assemble their records. Only in the last few years have I listed them more systematically. I describe here seven cases. Perhaps one or two will be marked with a query by some readers, but at least they merit careful consideration. And whatever may be thought

of these, there is, I think, material in others to put diagnosis almost beyond question.

Here are the seven cases.

Case I.

P.A.M., aged thirty-five years, a labourer, was first examined on April 30, 1936. He said that on March 25, he was using a road plough, with his hands on the handles, when the plough struck a stone. The plough jerked over so that the left handle went down and the right went up, at the same time throwing him over and jerking the handles out of his hands. Neither of the handles hit him. At once he felt a severe pain in the right groin. He had to lie down, doubled up, for five or six minutes. Then he picked himself up, unharnessed his horse, and walked with his horse to the camp, about a quarter of a mile away, stopping for a rest here and there. When he reached camp, he lay down for an hour or two. Then he felt a little easier, got on a saddle horse, and rode seven miles to town to see the doctor. The doctor was not at home, so he had to wait till next day. The part was then very painful, and it was very tender to pressure. No bruise mark developed. He was kept in bed for a couple of weeks, and came to Sydney on April 28. He still had the pain, but it was not so severe.

On examination, he walked with a slight stoop forwards, and with a slight limp. He said that at first he could not straighten his leg, but he could do so at the time of examination. There was moderate tenderness on the pubic bone on the right side at the pubic tubercle, and also at the attachment of the *adductor longus*.

The provisional diagnosis of sprain was made, and he was sent for X-ray examination. The report came back: "No evidence of injury." I advised rest for six weeks, under the care of his doctor. I received a letter from his doctor, stating that after three weeks' rest in hospital the patient seemed no better, and sometimes the pain seemed acute, but it was not so bad as it had been at first. The doctor saw him many times when the pain was on, and he was quite satisfied as to its reality and severity.

The patient came to see me again on July 1, two months after the first examination. He said he had spent the interval in bed until June 26. For the first month after he went to bed the pain was often bad, but in the second month it was distinctly improving. He would be easy for a few days, and then, on some movement, he would get a sharp attack, after which it would settle down again. He felt better with the hip flexed. Straightening out the limb caused discomfort. When he was examined, he located most of the pain and tenderness at about one inch above the pubic bone, on the rectus sheath, but there was some tenderness also on the pubic bone. It was no longer tender over the origin of the *adductor longus*. He was not limping.

Comment.

I think no one is likely to dispute that this was a case of inguinal sprain situated at the insertion of the rectus muscle. It was probably also associated with a sprain of minor severity at the origin of the *adductor longus*.

Case II.

A.E.B., aged forty-four years, a meat carter, was examined on June 9, 1936. He said that on June 1, about 9.30 a.m., his foot slipped while he was unloading beef, with a load on his back. He did not fall, but felt immediately a burning pain in the left groin. As far as he knew, there had never been anything the matter there. After resting for a few minutes, he went on with his work. He finished unloading the carcases, and drove to Homebush, where he loaded the wagon again, and delivered the load to various shops. He had an ache in the groin all the time, and at lunch time, about 1 p.m., he put his hand down and felt a lump. He went on with his work till 6 p.m. In the evening he went to see a doctor, who said he had hernia, but that it was "not down much", and advised him to go to work next day and see what happened. He worked next day, the pain continuing as before. Next evening he saw the doctor again, when the lump was about the same. The doctor recommended him to work again for another two days, but he did not do so because the part was too uncomfortable. On June 4, he saw the doctor again, who gave him a certificate that he had a left inguinal hernia. On the following day, June 5, he was examined by the insurance doctor, and again on June 9, when he was referred to me. The patient said that the pain had been like a toothache, and he felt it at night when he was lying down, but not every night. It had kept him awake for hours on the previous night. Yet sometimes he could walk about with little or no pain.

On examination, the patient localized the pain in the lower part of the left rectus muscle, but said that it was sometimes a little further out, and sometimes in the testicle. No hernia could be seen or felt, but on palpation during a cough I could sometimes feel a slight push forwards at the abdominal ring. This was nothing beyond normal, and certainly not hernia. Both subcutaneous rings admitted the finger easily. When the patient coughed with the finger in the inguinal canal, no hernia could be felt.

Comment.

In my history I omitted to record presence or absence of tenderness, but, without that, I think we can make a clear diagnosis of sprain at the insertion of the rectus muscle. The pain was definitely located by the patient at that site. It was not related to hernia. If there was a hernia, it would be irrelevant.

Case III.

H.M., a gardener and general worker, aged about fifty years, was examined on November 23, 1944. He said that he was well up to October 25. On that date, he was standing on a plank, washing the kitchen ceiling. He noticed nothing at the time, but after he went home and had had his tea he felt a dull ache in the right groin and on the right side of the scrotum, and also higher up in the right side of the abdomen. He did not feel well, but had no nausea. He had no scalding or frequency of micturition. He thought the work in washing the ceiling was responsible. He had done no work since. His appetite had been normal. He had never had anything like the condition before. He felt no better at that time than he did a month earlier, when it began.

On examination of the patient, there was well-marked tenderness on palpation over the right pubic tubercle, and there was also a little tenderness lower down below the inguinal ligament. The testicle was normal. He complained of some pain on adduction of the thigh. This was located over the tendon of the *adductor longus*.

These symptoms continued, but a couple of weeks later he returned to work, and found he was able to carry on, although suffering discomfort.

Comment.

The symptoms seem to have been compatible at first with a diagnosis of ureteral colic, but the history of onset and the persistent localized tenderness give more support to a diagnosis of inguinal sprain. It may be remarked in further comment that the symptoms of a sprain are sometimes relatively slight at first, but become more manifest some time later, when the part has come to rest.

Case IV.

R.J.Y., aged fifty-seven years, a labourer, was first examined on February 15, 1945. He said that on February 15, 1944, he was clearing away blackberry bushes after they had been mown. He was pulling on a rake when his foot slipped, and to avoid falling, he twisted his body. At once he felt a pain in the right groin. He was able to carry on, but the pain did not cease, and after two more days he had to give up work. On that day, February 24, he noticed that the right testicle was swollen and painful, and in the evening he visited his doctor, who advised rest. He saw the doctor again on the following day, and was told to rest for a fortnight. At the end of this time the doctor said he had hernia, and advised operation. Later on, he was examined by a consultant, who said he had hernia requiring operation. Then, in May, he was operated on by the doctor who first saw him. He had done no work in the meantime, because of the pain. He was in hospital for three weeks, and rested at home for a further two

weeks. He had had pain ever since the operation. Then, because the pain did not disappear, he was sent by his union to another consultant, who advised a second operation because he had another small hernia to the right of the scar. He knew nothing about the hernia himself, but only about the pain. Then his own doctor examined him again, and said there was no hernia, and on January 8 he received a certificate of fitness for work, but was told by his employer that there was not work for him. He was then sent to me for an opinion by the solicitors for his union.

There was no abnormality to be seen on inspection of the patient. He localized the pain and tenderness to a small area immediately superficial to the pubic tubercle, medial to the site of the operation cicatrix. The cicatrix was almost vertical. On palpation it was impossible to feel any sign of hernia, either lateral or medial to the cicatrix. There was no abnormality to be felt in the testicle or scrotum. On pressure over the pubic tubercle, either from the surface or by a finger introduced along the cord, he complained of tenderness, and the reaction left no doubt as to the location.

Comment.

I am unable to say anything about the hernia that was operated on, but I could find no hernia at the time when I examined the patient. I think it more than possible, and indeed most probable, that the real injury of February 22, 1944, was a sprain, and that would account for the pain not being removed by operation on the hernia. But even in a sprain one does not expect pain to continue for a year. Pain and tenderness, when caused by descent of a new hernia, are observed as a temporary accompaniment, and go away in a few days. It is difficult to believe that this case is an exception. I am driven to the conclusion that this case has been misinterpreted, and that the hernia that was found was independent and irrelevant. The real lesion was a sprain at the attachment of the inguinal ligament to the pubic tubercle. The patient is now introspective as regards the site, and would improve psychologically if he got some suitable work and tactful encouragement.

Case V.

H.C., aged forty years, a labourer, was examined on August 7, 1945. He said that one afternoon about three weeks earlier he was lifting a heavy post in a hole to turn it round. While doing this, he felt a sudden pain in the right groin. He knocked off, and sat down for about twenty minutes, and then went home, riding a bicycle. He had his tea and went to bed, but moderate pain was still present. Next day, he cycled six miles to see a doctor. The doctor said he had a hernia. The patient had done no work since. The pain had not improved. In the first six weeks he vomited a few minutes after meals. He had never vomited before. The pain was still in the groin, and at times it was severe, like a knife cut. He had always been used to heavy work. He saw the doctor a few days after his first visit and inquired about operation, but the doctor said he was not fit at the moment, because he (the patient) had bronchitis. He had suffered from a cold for months, with a good deal of coughing, and the cough now caused pain in the groin.

On examination of the patient, no swelling was visible at first, but when he coughed while standing up a small bubonocele appeared. The subcutaneous inguinal ring on both sides admitted the tip of the finger easily, but no hernia passed into it on either side. Tenderness was elicited on pressure over the pubic tubercle. Tenderness was present also in the subcutaneous ring and the abdominal ring.

Comment.

A small incomplete hernia appeared when the patient stood up and disappeared when he lay down, behaving like an old hernia. It was not of very recent origin, and it was not the cause of the pain. The pain that is commonly found associated with the sudden appearance of a hernia lasts only a few days, and is felt at the pillars of the subcutaneous ring, apparently as the result of stretching. A pain lasting as long as three weeks with persistent tenderness is more consistent with sprain, and this could be caused by lifting a heavy weight. The cough would increase tension and increase pain while the cough lasted. Operation on the hernia would not cure the sprain, though the associated rest would help towards recovery. The pain might continue for a long time if the cough persisted.

Case VI.

W.F., aged twenty years, a boilermaker's labourer, was examined on September 25, 1945. He said that on September 17, eight days earlier, he had to lift a heavy piece of iron. While doing this, he felt a pain in the right groin. He ceased work for five minutes, expecting the pain to go away, but as it did not, he went to the ambulance man and reported it. He felt ill, and could not eat all his dinner. After dinner, he tried to work again, but about 1.30 p.m. he reported again and said he could not carry on. He then went to a doctor, who said he had a rupture, and recommended operation. Next day, September 18, he was examined by the insurance doctor, who said he was not sure about the hernia. The patient had not worked since, and felt pain all the time. A swelling came when he walked about, and went away when he lay down. He said that his appetite had gone off since the accident, but he did not feel ill. He was worried about the proposed operation.

On examination of the patient, there was no sign of swelling. On palpation considerable tenderness was elicited at the subcutaneous ring and on pressure over the inguinal ligament. No hernia could be found. He could bend till he touched his toes, but complained of pain on coming up again. The subcutaneous ring was small, and did not admit the finger. The attempt caused pain. He still said there was a "swelling" at the site of the pain, but there was not. He seemed to have only a vague idea of the meaning of the word. No swelling could be obtained by any means. He appeared to be nervous and frightened at the prospect of an operation.

Comment.

No hernia was discoverable. No operation was indicated. The patient was psychologically disturbed, and physically he was suffering from inguinal sprain. No other diagnosis seems at all likely.

Case VII.

J.M., aged twenty-one years, a carpenter, was examined on July 2, 1946. He said that on Friday, May 24, about 9 a.m., he was lifting a heavy band saw weighing about five hundredweight and suddenly felt a pain in the right groin. He was able to carry on at his work that day, and on the Monday following, though still feeling the pain. On Tuesday he felt unable to work because of the pain, and he had not worked since. He had felt the pain the whole time, though at the time of examination "it was more an ache than a pain". The pain was made worse by walking or standing, so that he had to assume a new position to get relief. He suffered from aching even in bed. The pain at night kept him restless. It was not so severe when he got out of bed in the morning. He spent two weeks in bed during June, but he thought the rest did no good. His appetite was good.

On examination of the patient he located the site of pain exactly over the right pubic tubercle. There was decided tenderness when this spot was pressed on, especially when it was approached by the finger placed in the inguinal canal. This tenderness was not present on the left side. The cord was not tender. The subcutaneous inguinal ring admitted the tip of the finger easily on both sides. The pillars of the ring were not tender. There was no sign of hernia.

Comment.

A diagnosis of inguinal sprain supplies a reasonable interpretation of this case, and I cannot think of any other that could be accepted.

Discussion.

A final remark can be made. It will have been noted that in six of the seven cases the injury was on the right side. The total numbers are too few to allow of any valid conclusion, but the preponderance on the right side is enough to arouse our interest. Is there a real bias to the right?

Summary.

Seven cases of inguinal sprain are reported. In six the sprain was on the right side, and in one it was on the left.

In two the sprain was at the insertion of the rectus muscle, and in one of these two it may have been accompanied by a minor injury of the same sort at the origin of the *adductor longus*. In five of the seven cases the pain was located at the pubic tubercle. In all the condition caused disability. All the patients gave a history of unusual muscular effort, and all cases were characterized by persistent pain and tenderness. The symptoms may continue for months.

A CASE OF ANÆMIA OF THE PERNICIOUS TYPE.

By J. P. WALSH, M.B., B.S., B.D.Sc.,
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PERNICIOUS ANÆMIA is characteristically a disease of middle life associated with various alimentary disturbances—glossitis, achlorhydria, dyspepsia, diarrhœa and typical well-recognized peripheral blood and bone marrow changes. The essential cause is unknown, although an absence of the "intrinsic factor" is the basic lesion. Whitby and Britton[1] point out that heredity is an important factor, although "gastritis and chronic gastro-enteritis may contribute to or cause the failure". The old theory that a toxic factor may play a part has not been discarded. Any organic alimentary disease which interferes with the normal chain of processes may produce similar blood changes—for example, dietetic deficiency, lack of absorption, failure of storage.

The following case is presented because, although in some ways it is a typical case of pernicious anæmia, there are unusual features which cast a doubt on the diagnosis.

Clinical Record.

The patient, a man, aged eighteen years, had never been outside Australia, but had worked as a cane cutter in Queensland prior to enlistment on February 2, 1945. Apart from operations for appendicitis and a right inguinal hernia in 1931, he had enjoyed perfect health until three months prior to his admission to hospital, when he noticed some indigestion with eructations, "water-brash" and occasional vomiting after meals. These symptoms were not sufficiently severe to cause him to seek medical attention. One month later he was admitted to hospital with phimosis and was circumcised, and a week later, on June 1, 1945, he went to a medical rehabilitation unit for convalescence. After five days there he developed "ulcerative stomatitis", with soreness of the tongue and small, shallow, greyish-white ulcers on the left side of his lower lip, on his gums and around the edge of his tongue. During the next seven weeks all forms of local treatment failed to clear up the oral condition. While he was under treatment his dyspepsia recurred; he suffered from burning pain in the epigastrium after food, relieved at times by vomiting. The patient was taking a light fluid diet consisting chiefly of milk, because of the soreness of his mouth and tongue. He had diarrhœa for a few days only, the bowels being open three times a day with the passage of fluid, rather pale stools. Alkalis and belladonna failed to relieve the dyspepsia. The temperature chart showed an irregular evening rise to about 99·2° F., and he lost approximately six pounds in weight during the seven weeks.

On the patient's admission to hospital on July 25, his chief complaint was of a very sore tongue; his appetite was poor and he avoided rough or concentrated food and tomatoes. His bowels had been normal for about two weeks. The patient said that he had lost seventeen pounds in weight in three months, and his weight at the time of his admission to hospital was 116 pounds.

On examination, the patient appeared rather pale. No abnormality was detected in the heart, lungs or nervous system. No abdominal viscus was palpable and no tenderness was elicited on palpation of the abdomen. The systolic blood pressure was 100 millimetres of mercury and the diastolic pressure was 70. The skin was clear. The teeth were good and the gingivæ clean, except for slight reddening on the left side posteriorly. No ulceration was seen on the tongue, but a diffuse area of reddening extended from the under surface over the margins into the dorsal surface, and the marginal papillæ were atrophied, which produced a "raw" appearance. On the remainder of the dorsum diminished papillary growth was obvious. The appearance was that of acute atrophic glossitis. The tongue was tender on palpation. The throat was normal.

A blood examination gave the following information. The cell volume was 34%. The hæmoglobin value was 9·8 grammes per 100 millilitres (68%). The erythrocytes numbered 2,800,000 and the leucocytes 9,000 per cubic millimetre. Of the leucocytes, 67% were neutrophile cells, 27% were lymphocytes, 4·5% were monocytes and 1·5% were eosinophile cells. Of the erythrocytes, 0·3% were reticulocytes. Some giant forms of platelets were seen. The mean corpuscular volume was 120 cubic μ (normal, 78 to 94 cubic μ), the mean corpuscular hæmoglobin was 34 micromicrogrammes (normal, 27 to 32 micromicrogrammes) and the mean corpuscular hæmoglobin concentration was 29% (normal 32% to 38%). Examination of the erythrocytes revealed megalocytes, some anisocytosis and a little poikilocytosis.

Sternal puncture was performed and the bone marrow was examined. The cellular distribution was as follows: hæmocytoblasts (including megaloblasts) 4%, myelocytes 13%, polymorphonuclear leucocytes (neutrophile) 13%, eosinophile cells 5%, proerythroblasts 4%, normoblasts (various) 19%, megaloblasts 11%, reticulocytes 5% of the erythrocytes; megakaryocytes were present and platelets were plentiful. The marrow was cellular. Major R. Motteram made the following comment on the sternal marrow findings:

> The rise in hæmocytoblasts, proerythroblasts and especially the presence of megaloblasts and very large myelocytes with prematurely mature nuclei, indicate that the case is one of early pernicious anæmia. The platelets are still plentiful and there is no marked general megalocytosis in the peripheral blood as yet.

A test meal examination was carried out. The amount of gastric juice in the resting stomach was 30 millilitres. Mucus was plentiful in all specimens, but no bile or blood was detected. Except for a rise to nine units after one hour, free hydrochloric acid was completely absent from the gastric fluid. After two and a half hours the residual fluid amounted to 80 millilitres. The Van den Bergh test gave the following findings: the direct test produced a negative result; the indirect quantitative test revealed under 0·5 milligramme of bilirubin per 100 millilitres; the icteric index was 2·0. In the urine, urobilinogen and pus were found, but no bile salts or pigments.

A provisional diagnosis of early pernicious anæmia was made, and the following treatment was given from July 27. Two millilitres of "Anahæmin" were given intramuscularly every day for three days, then every second day for two weeks, then twice a week. Dilute hydrochloric acid was administered, one drachm being taken three times a day with food (through glass tubing). Liquid paraffin was swabbed over the mouth and tongue before meals, and saline mouth washes were used after meals. The patient was given a light ward diet and free fluids. On July 31 ferrous sulphate (three grains three times a day after meals) was ordered; later this was changed to iron and ammonium citrate, 30 grains three times a day after meals.

The clinical improvement was striking. Within a week the tongue showed signs of healing, the soreness was greatly diminished, the appetite improved, and the patient was gaining in weight. A daily reticulocyte count revealed no change for three days; then a steady rise to 5% by the seventh day occured and was followed by a decline to 2·4% by the tenth day. On August 9, a fortnight after the commencement of treatment, examination of a second smear of the bone marrow was carried out. The cellular distribution was as follows: hæmocytoblasts (including myeloblasts) 1%, myelocytes 6%, metamyelocytes 7%, neutrophile polymorphonuclear leucocytes 33%, eosinophile polymorphonuclear leucocytes 1%, lymphocytes 10%, proerythroblasts 2%, normoblasts type A 2%, normoblasts type B 16%, normoblasts type C 22%; megakaryocytes were present, and reticulocytes numbered 6% of the erythrocytes. Major Motteram commented as follows:

> The marrow is a little less cellular than before and the megaloblasts have disappeared. There is a great

increase in the number of the normoblastic series, many of which are mature. The leucoblastic picture formerly present has also gone, giving a relative increase in mature polymorphs. The picture is one of the response of pernicious anæmia to liver therapy.

On August 13, examination of the fæces for *Dibothriocephalus latus* gave negative results. On August 20 the hæmoglobin value was 10·5 grammes per 100 millilitres (72%), and the erythrocytes numbered 3,200,000 per cubic millimetre. At this stage the patient was feeling well and his tongue looked normal, and he had gained 14 pounds in weight in the three weeks of treatment. On August 31 a blood examination gave the following information: the hæmoglobin value was 12·7 grammes per 100 millilitres (88%), and the erythrocytes numbered 4,000,000 per cubic millimetre; the cell volume was 45%, the mean corpuscular volume was 112 cubic μ, the mean corpuscular hæmoglobin concentration was 27% and the mean corpuscular hæmoglobin was 32 micromicrogrammes. In view of the slight evidence of gastric acidity obtained at one reading of the test meal results, the test was repeated on August 23. On this occasion the gastric juice in the resting stomach amounted to 40 millilitres; mucus was present in all specimens, but less than before. Bile was present in the two hour and two and a half hour specimens. The residual fluid after two and a half hours amounted to 60 millilitres. Normal free acid was present in the fasting and first hour specimens, and a steep rise to 80 units occurred after the administration of histamine. An examination of the fæces on September 4 revealed no free fat or products of fat digestion. On September 3 a barium meal was given and examination revealed pronounced pylorospasm followed by rapid emptying with no localized tenderness. The duodenal cap was irritable and somewhat contracted; but no ulcer crater was detected. Examinations up to two hours after the meal revealed no evidence to indicate sprue. On September 9 a blood examination revealed that the hæmoglobin value was 13·1 grammes per 100 millilitres (90%), and the erythrocytes numbered 4,200,000 per cubic millimetre.

The patient went to a medical rehabilitation unit on September 18.

Discussion.

There is no doubt that the blood and bone marrow changes prior to treatment, and the response of these tissues to "Anahæmin" (a highly purified extract) were typical of pernicious anæmia; for example, the reticulocyte response was that to be anticipated from the erythrocyte count of 2,800,000 per cubic millimetre. There is no doubt also that the patient's clinical progress has been completely satisfactory. The doubt arises from the age of the patient and the test meal findings.

Pernicious anæmia is rare below the age of thirty years; but it is also unusual for the condition to be diagnosed at as early a stage as in the case under discussion. Wilkinson[2] has recorded several cases from the literature and from his own experience in which free acid was present in the gastric juice in undoubted cases of pernicious anæmia; most of these patients were young people. Harris and Harris[3] regard pellagra, pernicious anæmia and sprue as allied intestinal diseases, in which the oral and gastro-intestinal symptoms may be indistinguishable in cases in which macrocytic anæmia is present. However, most patients with macrocytic anæmia due to dietetic deficiencies or to defective absorption, as in the sprue syndrome, do not respond well to highly refined liver extracts, and need the cruder extracts together with vitamin therapy, particularly vitamin *B* complex. There is no evidence in this case of any nutritional deficiency or of organic alimentary disease or liver damage to account for the symptoms, and no special measures to combat such factors have been necessary to hasten the patient's recovery. (Compare the present case with that reported by Isbister.[4])

However, other points arise which need further consideration. First, the relationship of oral lesions to pathological changes in the stomach seems to be fairly intimate; it is possible that the stomach mucosa "healed" in this case as quickly as the oral mucosa. Whitby and Britton[1] mention that Schindler and Serby have shown by gastroscopic examination that the atrophy of the gastric mucosa occurring in well-established pernicious anæmia may retrogress during a remission.

The pathology of the gastric and oral mucosa is not well understood, as the different theories of the causation of gastric ulcer illustrate. Failure of secretion of the intrinsic factor may not necessarily be an irreversible process in the early stages, and not necessarily preceded by failure of secretion of acid and pepsin.

Askey[5] states that a biological assay showing absence of the intrinsic factor as well as response to desiccated hog's stomach or highly purified liver extracts is necessary for the precise diagnosis of Addisonian pernicious anæmia, and that the presence of free acid in the stomach is incompatible with such a diagnosis; yet Wilkinson has fulfilled these criteria in cases in which free acid is present.

If we define pernicious anæmia as a disease associated with a complete and irreversible failure of the mechanism of secretion of acid, pepsin and the intrinsic factor, and if no authority so defines it, then the case under discussion is not one of pernicious anæmia. Is it possible that a temporary upset in the secretory mechanism due to toxic or nutritional factors, at present unknown, and acting on the gastric and oral mucosa, may precipitate a vicious circle, which leads, if no treatment is given or if treatment is given too late, to permanent atrophy of these specialized tissues, the more highly specialized functions being the most affected?

The whole question of the causation of pernicious anæmia is involved, and the present position is that no precise definition of the disease entity called pernicious anæmia can be arbitrarily laid down. It is realized that the evidence submitted in this case is far from complete and that no definite conclusion can be reached on the facts presented. The further progress of the patient will be watched with interest.

Acknowledgements.

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DEVELOPMENTAL DEFECTS.

By K. M. BOWDEN,
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THE following three cases are interesting examples of developmental defects.

Case I.

M.W., a female baby, aged ten weeks, was accidentally suffocated by a blanket whilst sleeping in a double bed with her parents. She had failed to thrive since birth, and weighed only four and a half pounds. Post-mortem examination revealed the usual changes due to a suffocative death, with pronounced petechial hæmorrhages on the surfaces of the lungs and heart. The heart of this baby is shown in Figure I. It was a little larger than normal, the enlargement being most pronounced in the right ventricle. It can be seen from the photograph that there is only one large arterial trunk arising from the right ventricle in the region of the *conus arteriosus*; this vessel

is the aorta. No arterial trunk arises from the left ventricle, and there is no separate pulmonary artery.

The left ventricle communicated with the right ventricle and so indirectly with the aorta by means of a circular deficiency in the upper portion of the interventricular septum. The muscular part of the septum was intact. The *foramen ovale* was patent. The coronary vessels arose immediately above the aortic valve, which was normally formed. The atrio-ventricular valves were normal.

The aorta ascended upwards and to the left, and then arched backwards and to the right side of the trachea and œsophagus above the right main bronchus.

From the arch of the aorta one large branch ascended in front of and then to the left of the trachea; this corresponded to the innominate artery. Two small arterial trunks arose more posteriorly on the arch and ascended on the right side of the trachea; these corresponded to the left common carotid and left subclavian vessels respectively.

The origin of the pulmonary blood supply was the interesting point. The pulmonary arterial supply arose from the anterior surface of the descending portion of the thoracic aorta behind and below the right main bronchus.

FIGURE I.
Case I. One arterial trunk from the right ventricle, none from the left ventricle.

If this child had not been suffocated, it is probable that she would not have lived for any length of time with such an anomaly.

Case II.

K.H., a male baby, aged four months, who was greatly underweight and a mere skeleton for his age, died from bronchopneumonia. He was known to have congenital heart disease during life, and had spent two months in hospital on this account. Post-mortem examination revealed that the heart was not enlarged. The pulmonary artery was very small, particularly so at its commencement, and it arose from its usual site. The cusps of the pulmonary valve were normally formed. The aorta was large, and its widened origin communicated with both ventricles. The aorta at its commencement appeared to sit squarely over the upper portion of the interventricular septum, where there was a tiny circular deficiency in its membranous portion. The cusps of the aortic valve were normal, likewise the remaining heart valves. The *foramen ovale* was closed. The *ductus arteriosus* was patent.

This anomaly is not particularly uncommon, and is usually described in textbooks of medicine.

Case III.

M.L., a female child, aged two weeks, had been troubled with vomiting since her birth. No abnormality apart from this was noticed before death. Autopsy showed that the body was considerably dehydrated. The only abnormality found was in the lungs. Throughout the lungs were many cysts; they were large and more numerous in the upper lobe of the right lung than elsewhere. Some dilatation of the bronchi was present as well. Microscopic examination showed the cysts to be characteristic of congenital cystic disease. The microscopic appearance is illustrated in Figure II, the magnification being fifty times normal. The cysts were lined by epithelium bronchial in type, and the walls of some of them contained hyaline cartilage and smooth muscle. In the walls of some cysts there was only smooth muscle; in others a few scattered plates of cartilage were found.

Areas in the lung were completely devoid of normal parenchyma, which was replaced by an exceedingly vascular network supported by rather cellular connective tissue. The darker areas around the large cystic space near the centre of the photomicrograph represent such a structure. There are no alveoli in these areas; they have failed to develop. Some dilated bronchi appeared structurally normal. Some terminal respiratory infection had occurred, and collections of polymorphonuclear leucocytes were found in many normally formed alveoli.

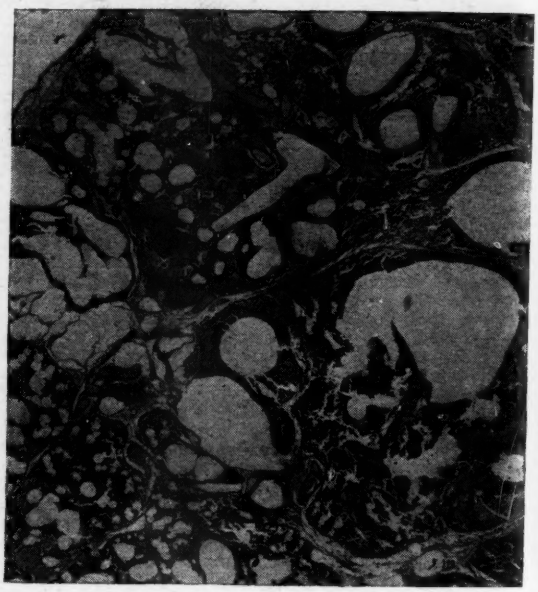

FIGURE II.
Case III. Cysts scattered through the lung. The intervening parenchyma is largely devoid of alveoli.

Congenital cystic disease of the lung is a malformation, the result of arrested development of the bronchial tree. A case such as this, occurring in a child of two weeks, is of particular value in elucidating the ætiology of the condition.

Acknowledgement.

Dr. C. H. Mollison, the Melbourne coroner's surgeon, drew my attention to the second case.

GLAUCOMA FOLLOWING HERPES.

By ARTHUR LAWRENCE,
Melbourne.

Case I.

IN July, 1930, I examined a woman, aged fifty-one years, suffering from double glaucoma. She stated that she had had an attack of shingles in the right leg three weeks earlier. The late Dr. Edward Ryan examined her in consultation with me, and his first remark was: "I have frequently seen glaucoma following herpes." Both eyes were trephined successfully, and in 1942 she had normal vision in each eye with a full field.

Case II.

On April 25, 1944, a woman, aged fifty-one years, reported with a history of left *herpes frontalis*, five weeks previously. She had iridocyclitis with raised tension. This apparently is not unusual; as Duke Elder puts it: "Sometimes a very recalcitrant secondary glaucoma develops." In this particular case the condition

quietened down on sodium salicylate therapy, but eventually trephining was necessary. The visual acuity on May 7, 1946, was 6/12.

Case III.

On August 10, 1946, a man, aged sixty-six years, was sent in by Dr. Mendelsohn; he had a history of right *herpes frontalis* a fortnight previously. The visual acuity in the right eye was 6/60 and in the left eye 6/6. The tension measured with a Schiötz tonometer was 50 in the right eye and 20 in the left. There was no sign of iritis in the right eye, which was trephined on August 16 and gradually made an excellent recovery. On August 30, 1946, the visual acuity was 6/6 with a full field. The other eye was normal in every way.

Case IV.

On July 2, 1946, a woman, aged sixty-seven years, reported with a history of left *herpes frontalis* three weeks previously. The tension in the right eye was 25 and in the left eye 45, with a Schiötz tonometer. There were no keratic precipitates and no sign of iritis. The visual acuity was 6/9 in the right eye and 6/12 in the left. The left eye was trephined at the Eye and Ear Hospital on July 9 and gradually recovered, until on September 6 the visual acuity was 6/12.

Comment.

I think it is worth while to report these cases, to draw attention to the possibility, even the probability, that glaucoma may follow herpes, so that the patients may reach the ophthalmic surgeon as early as possible. While these cases may be regarded as of secondary glaucoma, it is interesting to note that glaucoma may supervene when no sign of iritis can be detected, even with the slit lamp.

Reviews.

SOCIAL PÆDIATRICS.

THE appearance of a book on the subject of social pædiatrics may be regarded as a sign of the times as showing the widening of medical practice to include the social aspect.[1] Professor Charles McNeil in his foreword states: "I believe this book to be the first of its kind. It covers the whole range of human needs throughout the span of child and adolescent life, and describes how these have been met from 1600 to 1945." This being so, it is a contribution to pædiatric literature of more than ordinary significance, and appropriately comes from Edinburgh, whose university in 1930 was the first in Great Britain to establish a chair in child health. Since then similar chairs have been founded in the universities of Durham, Liverpool and London. What is meant by social pædiatrics may be illustrated by quoting from some of the chapter headings: "Juveniles in Need of Care and Protection", "Help for the Handicapped", "The Maintenance of Health", "The Child under Conditions of Total War", "The Administrative Background", and "Legislation Relating to Child Welfare".

The subject matter of this book falls into two main parts. The first third gives a detailed historical review; the remainder deals with present-day conditions. One outstanding impression after reading this excellent work is confirmation of the author's statement that: "The most striking feature of the present-day picture of child and adolescent care is its bewildering complexity." One difficulty in dealing comprehensively with so vast a subject is a tendency to over-compression. Most of the book perforce becomes descriptive and factual, with little space for critical analysis and expression of the author's opinions. Though the general practitioner and children's specialist will find much of interest, it is probable that this book will prove of greatest value to workers in the public health and administrative spheres. In a chapter dealing with the future, interesting suggestions are made on the training of medical students, and a plea is put forward for the introduction of home visiting as an integral part of the clinical curriculum. If this was done the author believes that "the relationship of environment to disease would be impressed upon the student with a conviction which systematic and hospital teaching cannot impart". As the text deals only with developments in Great Britain, some of the detail will not be relevant for Australian readers. A similar work dealing with conditions in this country would be of great value, and we hope will some day be written. In conclusion, a word of praise must be given to the admirable photographic illustrations numbering over 200. These are of interest in themselves and serve to leaven the loaf.

[1] "Child and Adolescent Life in Health and Disease: A Study in Social Pædiatrics", by W. S. Craig, B.Sc. (Glasgow), M.D. (Edinburgh), F.R.C.P.E., F.R.S.E., with a foreword by Professor Charles McNeil, M.A., M.D., F.R.C.P., F.R.C.P.E., F.R.S.E.; 1946. Edinburgh: E. and S. Livingstone Limited. 8½" × 5½", pp. 683, with many illustrations. Price: 25s.

"A GREAT MAN OF GUY'S."

IN the year 1725, just as scientific medicine was beginning to take a few hesitating steps in the right direction, the philanthropic bookseller, Thomas Guy, founded his hospital within a stone's throw of London Bridge. A little more than a century later its fame began to spread throughout the world by virtue of the original investigations relating to the natural history of disease carried out by Bright, Hodgkin and Addison, who became known to posterity as the "Great Men of Guy's".

Once again in the early years of the present century the old hospital became the centre of attraction, this time for eminent surgeons from North America and the Continent, all eager to learn of the new developments in the science and art of surgery that were taking place within its ancient walls. Although it is of comparatively recent origin, the story is faithfully unfolded by a distinguished London surgeon, Mr. W. E. Tanner, M.S., F.R.C.S., in a small book, "Sir W. Arbuthnot Lane, Bart., C.B., M.S., F.R.C.S.".[1] It is written in a pleasing style, contains many personal reminiscences and throws much light on the life and work of a remarkable personality who was associated with Guy's Hospital for over fifty years.

William Arbuthnot Lane entered the hospital medical school as a student only a few years after Professor Joseph Lister made the first announcement of the treatment of compound fractures by his antiseptic method to a highly sceptical and conservative profession; so he began his training as a surgeon at a time when surgical adventures in unexplored country were becoming the order of the day. At first sight it may seem rather an extravagant claim for the author to make when he places Arbuthnot Lane next to Lister on the scroll of the British pioneers of surgery; and it is a question that is sure to intrigue a number of medical historians before this view will be accepted. In the meantime it is gratifying to know that the discussion has been opened by a competent surgeon, who should be in a position to evaluate the true significance of Lane's work, particularly as he was so closely associated with him as a student, and later as a junior colleague with him on the Guy's Hospital surgical staff.

It would seem that much of the notoriety that Lane had thrust upon him at various stages of his exciting career had its origin in his unconventional method of treating all simple fractures by open reduction; then came his radical abdominal operation for "chronic intestinal stasis", and, finally, the irresistible urge that prompted him to go out into the highways and byways educating the English public in the simple laws of health. Indeed, he was quite accustomed to being the centre of bitter controversies concerning the startling innovations he adopted with such firm conviction in his extensive surgical practice; or, because of his determined sponsorship of the New Health Society, which evoked the criticism of a section of the profession as constituting a breach of its ethical rules. This opposition to his cherished ideals caused him to resign from membership of the British Medical Association and to request that his name be removed from the Medical Register. But his colleagues saw to it that he was made a life Fellow of the Medical Society in London before this last step was taken.

After reading this all too brief biographical sketch of another great man of Guy's, one cannot help feeling that his life and work are worthy of still further study; so many of his private, professional and public activities might be presented to us in much fuller detail. The frontispiece portrait reveals to us a man of commanding presence, handsome, determined, full of the milk of human kindness,

[1] "Sir W. Arbuthnot Lane, Bart., C.B., M.S., F.R.C.S., His Life and Work", by W. E. Tanner, M.S., F.R.C.S.; 1946. London: Baillière, Tindall and Cox. 8¼" × 5½", pp. 202, with one photograph. Price: 15s.

and with a keen sense of humour that must have stood him in good stead. It is quite understandable that his family life was so consistently smooth, and that he continued to enjoy the affection and admiration of many of his colleagues in all branches of the profession.

There can be little doubt that Lane had a charming personality and a splendid character, that as a craftsman he was preeminent for his manual dexterity, superb technique, mastery of detail and his insistence upon maintaining strict asepsis in every operative procedure. Perhaps some medical historian with an entirely detached mind will probe more deeply and discover the streak of real genius in the make-up of this unorthodox practitioner; he may be able to view the whole scene from a point of vantage clear of the dark clouds that still confuse the shadows and highlights. We want to know the extent of Lane's influence on the progress of surgery, whether he was a pioneer in the introduction of the complete aseptic technique and the founder of orthopædic operative procedures as we are familiar with them today. Already we must admit that he was years ahead of his time when he had to fight to establish his contention that it was the duty of the medical profession to educate the people in matters affecting their health.

We must be grateful to Mr. Tanner for giving us a valuable preliminary note on a most fascinating subject, and for including a bibliography of some four hundred articles, the product of Lane's versatile and original mind.

There must be some mistake when the name of Addison is mentioned among members of the medical staff of Guy's Hospital in 1881; one authority states that he died in 1860.

STERNAL PUNCTURE.

THE publication of a third edition of "Sternal Puncture" by A. Piney and J. L. Hamilton-Paterson has enabled the authors to add a few items to their review of the literature, but wartime conditions have prevented any major alterations.[1]

This little book of 78 pages offers, in a concise and simple form, descriptions of marrow films obtained by sternal puncture from patients with leuchæmia, leuchæmoid reactions, neoplastic conditions, anæmia, and some infective and protozoal diseases. There are also chapters on the normal "myelogram", on hypoplasia and aplasia of the bone marrow; and on the technique of sternal puncture. All this information would be more useful if it were well documented, but, as the authors state in the preface to this edition, no attempt has been made to consider the whole of the extensive literature on the subject.

Piney and Hamilton-Paterson skim rather lightly over the surface of a very difficult and intricate subject. The novice, reading their book, might imagine that the interpretation of marrow films is an easy matter. This, as every experienced pathologist knows, is far from being the case. The bone marrow is a very labile tissue; the appearances even in well-defined blood conditions are far from constant. Such things as intercurrent infections, chemotherapy, or the age of the patient may affect the picture radically. Last but not least, there is the question of obtaining a good sample of marrow; the fluid obtained by sternal puncture is always an admixture of blood and marrow, in varying quantities. The authors state that films should "be so made that histological arrangements, as well as cytological structure, are preserved". It is possible that something of the original grouping may remain in a spread film, but by no stretch of the imagination can it be said that the histological arrangements are preserved; to preserve them fragments of marrow large enough for embedding are required; these are only very occasionally obtained by puncture.

In the comparatively few cases in which sternal puncture is necessary, it is of great advantage to perform a sternal trephine as well. The information provided by marrow films, without histological preparations, may be quite misleading. The modern method of sternal trephine is mentioned, but not described in this book.

Some of the coloured plates are good; others are so diagrammatic as to be somewhat misleading; an instance of this is the plate depicting the marrow in acute lymphatic leuchæmia. The pictures are not described fully, that is, there is no mention of the magnification nor of the staining methods used. With all its faults, however, this book has three outstanding virtues; it is easy to read; it is written with a genuine interest in the subject for its own sake, and it is wonderfully free from the pedantry that characterizes so much medical literature.

[1] "Sternal Puncture: A Method of Clinical and Cytological Investigation", by A. Piney, M.D., M.R.C.P., and J. L. Hamilton-Paterson, M.D., M.R.C.S., with a foreword by the Right Honourable Lord Horder, M.D., F.R.C.P.; Third Edition; 1946. London: William Heinemann Medical Books Limited. 8½" × 5½", pp. 96, with many illustrations, some of which are in colour. Price: 15s. net.

POST-MORTEM EXAMINATIONS.

"AUTOPSY DIAGNOSIS AND TECHNIC", by Saphir, first published in 1937, has been revised and enlarged for its second edition.[1] The aim of the author is to provide a concise working manual that will assist students to follow the steps of an autopsy and to recognize the pathological lesions encountered. He recommends a modified form of Rokitansky's method, which he had in 1937 already used for fifteen years and found to have advantages over others.

The primary incision is Y-shaped, the arms of the Y beginning in the axillæ and meeting at the xiphisternum, the stem of the Y running thence to the pubis. (Such a low-placed incision must make difficult the removal of the neck organs.) After the abdominal and thoracic cavities have been opened and inspected, their organs from pelvis to neck are removed in one mass. The shell of the cadaver is examined and removed from the table and the organs are laid out for dissection. The advantage of this method, the author claims, is that the organs can be examined in their normal relations to one another, but more readily than within the body. No doubt there are other pathologists who can achieve an equally effective dissection with less manipulation.

A routine method for dissecting the organs is set out in detail, and Saphir wisely emphasizes the utmost importance of a systematic examination. Otherwise grave errors of technique are bound to occur and organs seemingly free from pathological changes may not be examined. Such an autopsy is mishandled, with the possible result that neither the disease nor the cause of death is properly explained.

The routine dissection is very thorough, including not only the larger organs, but also such structures as the parathyreoids, the cœliac plexus, the thoracic duct, and the blood vessels supplying the suprarenals. It is recommended that, if possible, the brain be hardened in 10% formalin for a week before dissection. Amongst other helpful tips are the instructions to open the sterno-clavicular joints from the posterior aspect to avoid injury to the subclavian veins, and when fat or air embolism is suspected to open the pulmonary artery or right ventricle under water and to watch for the rise of fat droplets or air bubbles.

The macroscopic appearances of the lesions to be looked for in the various organs are adequately described, although Saphir disclaims the intention of writing a textbook on pathological anatomy. The description of diseases of the breast is especially detailed. There are chapters, *inter alia*, on the spinal cord, unexpected death, blood dyscrasias, and stillborn and newly born infants, and notes on certain tropical diseases.

A particularly useful feature of the book is the tables wherein information is arranged for ready reference. There are eighteen of them, and they cover the causes of jaundice, the diagnostic features of the chief lesions of liver, kidney, spleen, lung, thyreoid, intestine, the types of pericardial, pleural and peritoneal fluids, the age of myocardial infarcts, the average weights of organs of children at various ages, *et cetera*.

Most of the 69 illustrations are rather crude diagrams portraying points in technique. No attempt is made to depict morbid appearances of the organs. A useful diagram is that of a fœtus showing the times of origin of osseous centres as a guide to its intrauterine age.

There is very little to question. We dislike the term œdema (page 292) for an increase in subarachnoid cerebro-spinal fluid. It is unorthodox to find spore-bearing anthrax bacilli (page 293) in a person dead of anthrax. In opening the thorax (page 71) it is better to divide the costal cartilages close to the ribs rather than one centimetre from the sternum. To the causes of hæmopericardium in the table on page 78 should be added rupture of the aorta from medial necrosis. The author retains a lingering attachment for the late *"status thymicolymphaticus"*.

For its comprehensive, clear and concise descriptions of morbid conditions, this useful book should be kept alongside "Shennan" in every post-mortem room for reference.

[1] "Autopsy Diagnosis and Technic", by Otto Saphir, M.D.; Foreword by L. Hektoen, M.D.; Second Edition; 1946. New York, London: Paul B. Hoeber, Inc. 7½" × 5", pp. 430, with many illustrations. Price: $5.00.

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THE PROPOSAL TO ESTABLISH A MEDICAL SCHOOL IN WESTERN AUSTRALIA.

DURING the past year or two repeated reference has been made in these pages to the overcrowding in the medical schools of Australian universities. In the issue of June 2, 1945, some details were given of the conditions prevailing at the University of Sydney and mention was made of the effects that overcrowding was likely to have on teachers and taught. Stress was also laid on the place that a university should occupy in the intellectual life of the community. In a discussion on remedies the establishment of new medical schools was mentioned; certain places were named as likely situations for these new schools, and the statement was bluntly made that before long a medical school would be set up in Western Australia. This has been confidently awaited by many for some considerable time. Apart from considerations of overcrowding, it would be expected in the normal development of this Commonwealth that the four medical schools of Melbourne, Sydney, Adelaide and Queensland should be followed before long by the establishment of a medical school at Perth, which already has a university but no faculty of medicine. The population of Western Australia is just under half a million. The population of Victoria in 1863 when the Melbourne Medical School was established was slightly over half a million; in South Australia when the Adelaide Medical School came into being in 1889 it was a little more than 319,000 persons. When the present population of Western Australia is considered in relation to these facts and also in relation to the enormous area of the State and the distance of its capital city from the nearest medical schools at Adelaide and Melbourne, it must be owned that the establishment of a medical school at Perth is a matter for immediate determination. There are, of course, other arguments that may be advanced in favour of this step.

The Government of Western Australia is aware of the need for a medical school within its borders and has been investigating the possibility of meeting the need. In July, 1946, Professor Peter MacCallum, Professor of Pathology and Dean of the Faculty of Medicine in the University of Melbourne, was invited by the Premier of Western Australia to visit that State in order to collect the evidence necessary and to give the Government the benefit of his advice. The Premier stated that he was anxious to secure the help of someone closely associated with a medical school in Australia; he pointed out that various estimates of the cost of establishing a medical school had been given, and that even the most conservative estimate suggested that the cost would be heavy. In the preamble to his request the Premier observed that students who intended to study medicine and were in fact engaged in the study of the first year of the course at the University of Western Australia, would have great difficulty in finding accommodation at the Universities of Melbourne or Adelaide to continue their studies; he further remarked that the cost to a Western Australian student of undertaking a medical course, involving as it did transfer to a university in the eastern States, prevented many otherwise suitable students from undertaking the course. He thought that until a medical school was established in the State, Western Australia would always be embarrassed in recruiting sufficient numbers of medical practitioners. The Premier asked for advice on several points which he set out in detail. They included the question of the time that would be taken for a medical school to come into being and to begin to operate, the cost and the possible influence on medical practice in the State. As a matter of fact the Premier's questions showed an intelligent understanding of the situation and suggested that he knew what some of Professor MacCallum's recommendations were likely to be. One might say that the Premier is determined if possible to do this thing, but that wisely, like the man in the Scriptures, he is sitting down first and counting the cost. The report submitted by Professor MacCallum to the Premier of Western Australia on October 12, 1946, has been printed. It is an important and valuable document which forms the basis of his president's address to the Victorian Branch of the British Medical Association published in this issue.

Professor MacCallum's advice to the Western Australian Government is that, if the proposed school throughout (pre-clinical, clinical and post-graduate) is of university standard and conforms to university ideals, its establishment is both highly desirable and practicable. It will, he thinks, be well worth the cost. Some conception of what Professor MacCallum means by university standard and university ideals, may be gathered from his president's address. His insistence on a high standard is heartening and will give satisfaction to all who are concerned with the real welfare of Western Australia from the medical point of view. The Government of Western Australia has a much to be envied opportunity. It has on its hands no burden of accumulated and outmoded inefficiency, no medical staff whose members have become set in their ways and fixed in their ideas and who have to be considered and possibly placated in the face of impending changes. It can start with a plan of its own devising and a personnel of its own choice. It has been given the groundwork of a plan which calls for early action. Professor MacCallum thinks that it would not be practicable to establish a school in time to accept second year students in 1947. If a decision is made to establish a

medical school in the University of Western Australia, the University of Melbourne, according to Professor MacCallum, would probably be prepared to accept up to forty students for instruction in the subjects of the second year. The interesting proviso is made that in these circumstances subjects for dissection would have to be supplied from Western Australia, by the beginning of the 1947 academic year. If no school is established in Western Australia in 1947 the University of Adelaide will take 20 second year students from Western Australia. This means that if there are 40 second year students, 20 will have to find a home in another university, and this Professor MacCallum states they will be unable to do. The cost of the establishment of a school, including buildings and equipment, has been estimated by Professor MacCallum as £100,000 at the University of Western Australia and £120,000 at the Perth Hospital. Building costs at present are prohibitive in the eastern States and they are not likely to be less in the west; these estimates are likely to be too low. The buildings at the university should, we are told, be ready by the beginning of the academic year in 1948; and the medical school buildings at the Perth Hospital should ideally be ready by January, 1949, "but will necessarily be coordinated with the planned erection and demolition of other buildings in some cases already in progress". A rough estimate of the annual cost of running the school when it has reached the fully functioning stage is £30,000 to £35,000. This includes the cost of a "director" and chairs of anatomy, physiology, medicine, surgery, pathology and obstetrics. Chairs in biochemistry and bacteriology it is thought will come later—a suggestion with which many will not be in agreement, holding that these subjects are of primary importance now and are not well taught unless they are in the hands of first-rate exponents of the subject. One of the most important points from Professor MacCallum's report is that dealing with the effect that the establishment of a medical school will have on the efficiency of the medical profession of the State. Not only would refresher courses and post-graduate study be encouraged, but an atmosphere would be created that is difficult to define. This atmosphere is partly the result of a need for concentrated study by all concerned in the medical school, because teachers to be successful must be proficient and because students are notoriously among the keenest critics. It also arises partly from a kind of infection—because concentrated study is going on, the desire for greater concentration and inquiry seems to spread, more reading is done, discussions are keener and pathogenesis as a subject for study has some chance of becoming a rival of therapeutics.

The bare outline of Professor MacCallum's report has been stated. Much of importance has had to be omitted, including some observations on the place that books and journals should occupy in a medical school. If our outline of the report is read in conjunction with his president's address, the reader will gather that the Government of Western Australia has been given material which it must treat with care and in the light of the needs of the future as well as of the present. To tinker with the problem will be disastrous, for no makeshift can do what is needed; the medical sciences are advancing far too rapidly for temporizing measures. A makeshift will have to be pulled down before long; the difficulties of creating a complete structure will then be much greater, the cost will probably be increased, and valuable time will have been lost. A well-known clinical teacher in Sydney once wrote on the body and soul of a hospital. A medical school has both body and soul. The soul of a makeshift will die, but the soul of a school founded in faith and hope with firmness of will and complete understanding must live and grow and benefit those among whom it is placed as well as those who are numbered among its offspring.

Current Comment.

THE PLACE OF SURGERY IN THE MANAGEMENT OF HÆMATEMESIS.

HÆMATEMESIS of such a degree as to endanger the life of the patient usually arises from the stomach or the adjacent portions of the œsophagus and duodenum. For practical purposes the underlying cause, in the majority of instances, is either peptic ulceration or the effects of portal obstruction. The exact source of the bleeding in any particular case may well baffle the clinician, while the difficulty of access and the condition of the patient alike temper the enthusiasm of the surgeon for operative intervention. Yet in any type of hæmorrhage there is an urge to make a direct attack and to achieve positive mechanical control of the bleeding vessel. The subject has merited and received much consideration in the past, but with better understanding of the physiological effects of blood loss and a growing appreciation of the value of replacement fluids and of earlier feeding, the arguments for and against surgical measures must be sifted again. The problem is not simplified by the fact that the majority of sufferers from hæmatemesis recover under conservative treatment. This often justifies the hope that the bleeding may cease spontaneously, but in less favourable cases tends to delay the vital decision until the patient's condition has deteriorated beyond the stage at which operation may reasonably be undertaken.

Gordon Gordon-Taylor[1] has reviewed some 1700 cases of bleeding ulcer, and writes of his changing outlook on this subject, averring that no surgeon worthy of the name should allow his attitude towards any problem to become crystallized beyond the powers of reasoned persuasion. Among the important advances in this subject have been the exploration of newer methods in the assessment of the amount of bleeding in progress and of its effect on the patient, the scientific employment of replacement fluids (especially the continuous drip transfusion) and earlier recourse to gastric feeding. These, together with increasing vigilance and enthusiasm on the part of physicians, have reduced "medical mortality" to such a low level as to necessitate the greatest caution before surgery is advised. Nevertheless, when properly decided upon and expertly carried out, operation will save some patients who would die without it. Gordon-Taylor advises early consultation between physician and surgeon, and deplores the tendency, becoming less evident, to delay the appeal for surgical advice until the patient is almost *in extremis*. Wise and skilled medical treatment and good surgical judgement and technique have paid fine dividends when physicians and surgeons have worked in cooperation. In the preliminary treatment of a patient with hæmatemesis, immediate steps should be taken to establish contact with a transfusion organization, and every patient suffering from severe hæmorrhage should be moved at once to a fully equipped hospital, if necessary with a transfusion running during transport. Early consultation between physician and surgeon should then be arranged. In discussing the indications for surgery during the acute phase of bleeding, Gordon-Taylor maintains that the diagnosis of ulcer must be established beyond doubt before surgery is adopted *à chaud*. Immediate surgery is indicated and may sometimes be successful in cases in which the erosion of a large vessel has caused torrential hæmorrhage. Urgent intervention

[1] *The British Journal of Surgery*, April, 1946, page 336.

is also demanded in the rare cases of concomitant hæmorrhage and perforation. Possible indications for operative measures are recurrent bleeding, and bleeding in the presence of duodenal, pyloric or mid-gastric stenosis. For patients over fifty years of age surgery may be required, especially if the palpable arteries are thickened and tortuous. Gordon-Taylor does not think that the present mortality from a gastric resection justifies an operation carried out solely as a prophylactic measure against bleeding. The other relatively common cause of hæmatemesis is portal hypertension, due to some form of portal obstruction. The latter may be either intrahepatic or extrahepatic. In either case the portal system becomes congested, and a collateral circulation develops. One well-known result is the appearance of varicose veins in the lower part of the œsophagus, or "œsophageal piles". Recent work suggests some points of resemblance between hæmorrhage from ordinary peptic ulcer and that resulting from portal obstruction.

Owen Wangensteen,[1] in the Seventh Listerian Oration to the Canadian Medical Association, which has already been discussed in these pages (see THE MEDICAL JOURNAL OF AUSTRALIA, May 4, 1946), discussed the peptic ulcer problem at some length, and presented the results of extensive animal experimentation on the ætiology of ulcer. One part of his investigations bears particularly on the present discussion. Portal hypertension was induced experimentally in a series of dogs and was followed by the development of collateral circulations and by congestion and œdema in the mucosa and wall of the stomach. Wagensteen found that under histamine stimulation such dogs became much more prone to peptic ulceration and to hæmorrhage than a control series; and further, that a "90% gastric resection" in the dogs with portal block could prevent ulceration and bleeding. Wangensteen considers that the ulceration is due to the mucosal resistance to acid peptic digestion being weakened by œdema, and holds the view that bleeding from œsophageal or gastric varices is "an erosive rather than a bursting process". He reports having performed subtotal gastrectomy upon several patients suffering from hæmatemesis due to portal obstruction, with relief of the hæmatemesis. Judgement must be reserved regarding the wisdom of this procedure, as it combines the risks of a major surgical enterprise with a failure to achieve any material improvement in the underlying portal hypertension. In regard to this last condition reference may be made to recent work by A. O. Whipple,[2] and by A. H. Blakemore and J. W. Lord, junior,[3] on the establishment of porta-caval shunts to relieve the hypertension due to portal obstruction. These workers, using vitallium tubes for support, anastomosed the splenic vein with the left renal vein or with the inferior *vena cava* by a non suture technique. The technical difficulties are considerable, but Whipple reports ten patients who were subjected to this procedure with no operative mortality and with encouraging post-operative results.

Enough has been written to indicate the changing outlook in the relationship of surgery to the management of hæmatemesis. Let us hope with Gordon-Taylor that the honest endeavour to promote advance "will in the fullness of time erect a temple of therapy retaining in its structure much that experience has already hallowed, but presenting also new bold bastions, the daring minarets and the stark pinnacles that shall bear witness to the devoted service of priests and acolytes carried in consummate perfection to the highest heavens".

[1] *The Canadian Medical Association Journal*, October, 1945, page 309.
[2] *Annals of Surgery*, October, 1945, page 449.
[3] *Annals of Surgery*, October, 1945, page 476.

THE PARKINSONIAN SYNDROME.

THE senior practitioner of today was taught to accept the Parkinsonian syndrome and *paralysis agitans* as being synonymous with one of those vague philosophical concepts termed a disease. Hunt's well-known work subdivided the condition into types related largely to age of onset, adding a supplementary symptomatic form. This was in 1917, when von Economo's observations were almost due to be made. Immediately after the last war the flood of cases of encephalitis of the so-called lethargic type produced an abundant crop of neurological sequels whose resemblance to the conditions examined by Hunt and earlier workers immediately stirred up considerable interest and observation. As time went on more and more Parkinsonian affections became manifest, though there appeared to be a number of clinical distinctions between the earlier and more recent cases. Then was the question raised whether all these varied forms of this syndrome might be due to a common cause, virus infection of the nervous system. However, it has been generally accepted that the Parkinsonian syndrome may be produced by various agencies, and that there is a sufficient difference between the various types to enable us to distinguish them, not only by the age of incidence, but by their physical nature. Reassessment of such matters is always of interest, and this has been carefully done by Helen Dimsdale in an analysis of over 300 cases studied in hospital and private clinics from 1900 to 1942.[1] The records of 100 cases were examined from the 1900-1919 period in order to determine the picture of the Parkinsonian syndrome seen prior to the appearance of the epidemic series. The age distribution showed a modal age of onset between fifty-one and sixty years, the majority of the cases occurring in persons over the age of forty years. The dominant sign was tremor, and rigidity was common. Between 1920 and 1930 another series of 100 cases showed a less uniform clinical picture. One-third corresponded to the pattern associated with *paralysis agitans*, one-tenth were indeterminate, and over one-half were of the post-encephalitic variety. Once again the *paralysis agitans* group fell within the fifty-one to sixty year period of age of onset. The encephalitic series showed a much earlier age of onset, since the infection typically attacks young adults in the first half or life. The well known signs and symptoms were well exemplified in these cases, including the ocular manifestations and mental sequelæ. In the third series, 1931 to 1942, it became increasingly more difficult to distinguish between the different forms of Parkinsonism. One reason for this was that patients were then showing signs of Parkinsonism a number of years after an undoubted attack of encephalitis, at an age which might be compatible with the onset of the degenerative form of the syndrome. The extremes of the latent period between an attack of encephalitis and the onset of Parkinsonian symptoms were immediate onset on the one hand and a period of nineteen years on the other. The author points out in the discussion of the results of this inquiry that there are several problems to be solved, in particular whether an idiopathic form exists, whether the degenerative and post-encephalitic types can be accurately distinguished, and whether the latter type of the syndrome can originate in the absence of an encephalitic infection. The pathological evidence is briefly summarized, and it is concluded that it is reasonable to attribute the later arising variety to a presenile degeneration. It is further concluded that the distinction between the two main ætiological types can be made by clinical methods, though it is suggested that the milder varieties of infection may possibly produce an end result indistinguishable from *paralysis agitans*. This brings us to the last point. When patients are seen who show such signs as rigidity, ocular affections of different kinds and sleep disorders, all of rapid onset, need the absence of an unequivocal history of encephalitis make us hesitate in placing them in the encephalitic category? The only difficulty is really the long period of time that has probably elapsed since the infection, because many of these persons are not quite of the younger age group. We surely will agree with the author that the modern view of virus infections is that these agents are capable of remaining dormant within the cells of the body over long periods.

This study is of interest, as its review, extending over a period of more than a generation, confirms the general beliefs concerning the Parkinsonian syndrome. The subject would be one on which an interested general practitioner might collect over a number of years extremely valuable data.

[1] *The Quarterly Journal of Medicine*, July, 1946.

Abstracts from Medical Literature.

BACTERIOLOGY AND IMMUNOLOGY.

Photooxidation and Antibodies.

WILLIAM C. BOYD (*The Journal of Experimental Medicine*, March, 1946) has studied the effect of photooxidation on the hæmagglutinating antibodies. An anti-Rh and an anti-A serum were selected and sensitized by being mixed with one-tenth their volume of a 2% solution of eosin Y; they were then exposed to the light of ten standard 100 watt lamps, the temperature being maintained, by means of fans, at 20° C. Samples of serum were taken at intervals during a period of three days and the hæmagglutinating titre was estimated. Control sera containing eosin Y, but not exposed to light, were also tested. A dilution of anti-A serum, 1 in 1,000, previously producing agglutination, lost its power in three hours, a 1 in 100 dilution lost its power after 49 hours, and undiluted serum giving a strong reaction at the first examination failed to produce any at all after 71 hours. In the case of the anti-Rh serum fifteen and a half hours abolished its power, and tests also were carried out for the presence of the blocking antibody as evidence that a change of reactivity might occur in the antibody system, but none could be obtained from the sera or dilution used in these experiments.

Complement Fixation in Hepatitis.

J. A. R. MILES (*The British Journal of Experimental Pathology*, February, 1946) has made a serological investigation in hepatitis, using the complement-fixation reaction as part of a wide series in an attempt to find a specific reaction for the diagnosis of infectious hepatitis. Antigens were prepared from livers obtained in fatal cases of acute liver necrosis, infective hepatitis and homologous serum hepatitis, and the amount of fixation of complement found did not differ from that obtained when the antigens used were prepared from normal livers. Post-arsphenamine hepatitis, however, yielded different results. Serum from patients reacted with antigens prepared from livers of post-arsphenamine hepatitis and not with any other liver antigen. Serum from patients with all types of hepatitis did give some reactions with both normal and abnormal liver antigens, but no specific reaction for hepatitis was found.

The Dangerous Carrier of Hæmolytic Streptococci.

MORTON HAMBURGER AND MARGARET JOHNSON GREEN (*The Journal of Infectious Diseases*, July-August, 1946) have continued their studies on the dangerous carrier of hæmolytic streptococci, by making observations upon the role of the hands, of blowing the nose, of sneezing and of coughing in the dispersion of the organisms. Not every test was carried out on each patient, but from those done on the 228 patients observed certain facts emerge clearly. The throat carrier of hæmolytic streptococci dispersed his infecting organism to a far less degree than the nasal carrier. The "noseblow" counts were between 10,000 and 10,000,000 organisms in nasal carriers, as compared with 50 in throat carriers. The infection of the hands of a nasal carrier was high after a single noseblow, while three vigorous coughs sometimes failed to produce any of the organisms. The technique for the preparation of cultures from sneezing was difficult, and assessment of the information gained did not show the state of dispersion of the infective material, and was therefore of limited value. The authors conclude that the noseblow is the most important respiratory activity in the dissemination of hæmolytic streptococci into the air and onto the hands of the nasal carrier, that the hands provide the most likely means of transmission of the organisms, and also that throat carriers are of relatively minor importance in the spread of hæmolytic streptococcal infection.

Particulate Antigen and Antibody Formation.

T. N. HARRIS AND W. E. EHRICH (*The Journal of Experimental Medicine*, August, 1946) have continued their studies in immunity by tracing the fate of injected particulate antigens in relation to the formation of antibodies. The antigens used were sheep red cells and dysentery organisms injected into the pad of the rabbit's foot and the popliteal lymph node; the efferent lymph from this gland was studied. The experimental results obtained suggested that phagocytosis of the particles locally was followed by liberation of soluble antigenic substances which are carried to the lymph node where the antibody synthesizing mechanism comes into play. The concentration of extractable solution material at the site of injection falls off and is soon replaced by detectable antibody. Evidence is presented that the immunologically active substance is derived from the injected antigen by a physiological process and means are suggested by which antigens are made available to the lymphocyte.

Monkeys and Experimental Influenza Virus A Infection.

SAMUEL SASLAW *et alii* (*The Journal of Experimental Medicine*, August, 1946) have made an analysis of the relative roles of humoral and cellular immunity under conditions of optimal or deficient nutrition in the reaction of monkeys to experimentally induced influenza virus A infection. *Macaca mulatta* monkeys could be infected intratracheally under ether anæsthesia and produced antibodies eight to ten days after inoculation, although no symptoms of influenza became manifest. The antibodies in some instances persisted as long as nine months. A specific fall in the number of polymorphonuclear leucocytes was found in animals inoculated with the virus for the first time, but not after subsequent inoculation. Neutralizing antibodies did not save animals whose susceptibility had been increased by exposure to cold or nutritional deficiency, even though they were present in as high titre as in normal animals.

Fæcal Urobilinogen Clinical Evaluation.

N. F. MACLAGAN (*The British Journal of Experimental Pathology*, June, 1946) has made a clinical evaluation of a simplified method of estimation of fæcal urobilinogen. A fixed amount of fresh fæces is treated with ferrous hydroxide to convert stereobilin into urobilinogen and filtered. The filtrate is treated with Ehrlich's reagent and sodium acetate, and the resultant pink colour is compared with a standard in a colorimeter and recorded as milligrammes of urobilinogen per 100 grammes of fæces. Daily excretion can be calculated with moderate accuracy. Normal values were from 30 to 220 milligrammes per 100 grammes, an average of 100 milligrammes *per centum*. One hundred and twenty estimations are analysed. In patients with complete biliary obstruction no pigment could be demonstrated, while in the jaundice of infective hepatitis increased figures may gradually return to normal. In pernicious anæmia high normal values were present, while in iron deficiency anæmia low figures were the rule. In serial tests on fracture patients it was found that the figure was consistently high for the three weeks after the bone had been broken. The value of the test as an indication of hæmolysis is discussed.

Absence of Antibody from Macrophages.

W. E. EHRICH, T. N. HARRIS AND E. MERTENS (*The Journal of Experimental Medicine*, May, 1946) have investigated the absence of antibody in the macrophages during maximum antibody formation in response to the injection of antigen composed of dysentery organisms or typhoid vaccine. It had been found in previous experiments that antigen suspended in mineral oil produced antibody responses more intense and lasting than in saline solution alone, the local lesions in the first phase consisting of macrophage accumulation and suppuration; but the antibody titre was higher in the draining lymph node than in the lesion, suggesting that it was produced in the lymph node, and possibly in the lymphocyte. This finding was confirmed in the present experiments. Antigens were then injected into the peritoneal cavity, where the early response was a polymorphonuclear cell, the later response being a macrophage. Determinations of the antibody titre in the cells of the exudate in the two phases could not demonstrate its presence there at all, while the titre of the supernatant fluid was a high as that in the animal's blood serum, so that it was thought that antibody was concentrated in an inflamed area. The authors believe that the macrophage does not synthesize agglutinins against dysentery or typhoid organisms.

Sulphadiazine-Resistant Hæmolytic Streptococci.

EDWARD D. DELAMATER, ROBERT JENNINGS AND ALBERT WALLACE (*The Journal of Infectious Diseases*, March-April, 1946) have made a preliminary report of an outbreak at Keesler Field, Mississippi, of streptococcal disease caused by a sulphadiazine-resistant Group A, Type 17 hæmolytic streptococcus. Both sore throat and scarlet fever occurred, chiefly in a basic training group and in a hospital. The first patient had been ill before arrival and presumably introduced the Type 17 organism, which was later found to be resistant *in vitro* to 125 milligrammes *per centum* of sodium sulphadiazine. The basic training squadrons were given no diazine as prophylaxis, but cases continued to occur. Cultures from dust and from blankets continued

to show the organism, and cross infections occurred in other cases in the hospital. Finally the influx of new trainees was halted, and the infection gradually died out. Many aspects of the problem of this epidemic are discussed.

Coagulase and Alpha Hæmolysin.

R. E. O. WILLIAMS AND G. J. HARPER (*The British Journal of Experimental Pathology*, April, 1946) have compared the coagulase and α hæmolysin production by staphylococci, and have compared the results of tests performed by eleven tube methods and the slide method for coagulase, and by three methods for the production of α hæmolysin. One hundred and fifty-two strains were tested; 100 were coagulase producers, and three methods in which diluted plasma and a fairly large inoculum were used gave comparable results. Of these 100 strains 93 produced α hæmolysin and two β lysin. Cultures made in broth or in sloppy agar did not differ in their production of hæmolysin.

Distribution of Types of Hæmolytic Streptococci.

ALICE EVANS (*The Journal of Infectious Diseases*, January-February, 1946) has studied the distribution of the various agglutinative types of hæmolytic streptococci of Group A. Four hundred and forty-four strains isolated over a period of forty-five years from Europe, England, America and Australia were typed according to the Griffiths method; due regard was paid to certain difficulties of cross typing, and the method of tryptic digestion of emulsion was used, if spontaneous agglutination took place, in order to obtain a smooth suspension. In general the pathological source of the material did not show any association between serological type of organism and clinical type of disease, although in some instances data available were suggestive; in others the number was too small to be relied upon. Type 1 appeared fairly commonly in scarlet fever, but was also largely responsible for puerperal sepsis, and also for streptococcal diseases in children. Type 3 was troublesome in that it frequently agglutinated with other antisera than its own; Type 5 was rarely found in scarlet fever, while Type 6 was frequently associated with suppurative lesions. Type 8 occurred once in a particular area as the cause of scarlet fever. Type 17 has usually been associated with severe infections, and has been recorded in 39 children, eight of whom developed rheumatic sequelæ. The chronological tables of types isolated emphasize the shifting predominance of types in different areas.

HYGIENE.

"Hygeialogy."

E. STANLEY RYERSON (*Canadian Journal of Public Health*, August, 1946) writes on "hygeialogy" or "the art and science of personal health". He is director of the School of Physical and Health Education at the University of Toronto. He urges the need for a clearer conception of health and for its proper assessment as a basic part of any examination. The whole body of knowledge concerning health is a subject deserving a name of its own. With the degree course in physical and health education the subject has been given a university status. Discussing the effect of exercise on quality of tissue, the author states that fractures in football players are unusual after three weeks' training, and he emphasizes the effect of functioning of the digestive tract. He points out its increased importance in the reconditioning of convalescents. Far more attention should be paid in the medical course to the "well person", and the author suggests about an equal division of time in the medical course to pathology and to "hygeialogy" (health, structures and functions in relation to health, and the well person, prevention of disease). Of 209,000 recruits in 1941, 56% were fit for service anywhere, 14% were fit for service behind the line, 10% were fit for service in Canada only and 20% were entirely unfit.

Refrigeration of Food.

H. S. ADAMS (*American Journal of Public Health and the Nation's Health*, September, 1946) states that in many refrigerators a temperature of 50° F. is found and allowable, but for fresh meat a temperature of 35° to 40° F. and for poultry 29° to 32° F. are recommended. Contamination must be avoided. The drain pipe must not go directly to a sewer; regular frequent cleansing and disinfection should be a routine. Ultra-violet lamps with wavelengths about 2,540 Angstrom units are in use to reduce microbic growth and also to eliminate odour. If in use, butter, cream, sausages and fish need protection in covered containers to prevent rancidity. Radiation does not justify the use of higher temperatures in the attempt to make meat more tender.

A Typhoid Fever Carrier.

G. GRAHAM SIMMS (*Canadian Journal of Public Health, August, 1946*) writes on an outbreak of typhoid fever which occurred at Trenton, Nova Scotia. He shows that the lifetime carrier may still give rise to outbreaks of typhoid fever. He refers to a known carrier whose attack dates back to 1913. She was responsible for cases or deaths in 1918, 1921 and 1930. In 1942 she became cook at a restaurant and twelve primary cases quickly appeared. Cholecystectomy is planned for the carrier and sodium tetraiodophthalein for recent convalescent types.

Combined Diphtheria Toxoid-Pertussis Vaccine Administration.

A. R. FOLEY (*Canadian Journal of Public Health*, July, 1946) reports that a group of over 133,000 children under ten years of age in the Province of Quebec, including the city of Montreal, were offered protection against diphtheria and some defence against whooping-cough. Babies under six months and children who had had whooping-cough were omitted. All except infants were given three doses of 2·0 millilitres in one arm at intervals of one month. Morning injections gave better results. Fluid toxoid gave no reactions in infants, but the combined injection gave more reaction in babies than in children of six years or older. Twenty-five *per centum* had a red tender area for which cold wet dressings were used, and in about 10% some malaise and fatigue were present for twelve to eighteen hours. Babies may be fretful and restless for two hours the first evening. The mothers were duly warned and were very cooperative. The fatality usual among babies emphasizes the need for their protection. In 2% of cases a spasmodic cough developed after the first dose without a rise of temperature or lung signs, called by parents *"coqueluchette"*. The cough disappears in ten days and needs no treatment. About 38,000 children received three doses and 3,000 a "booster" dose in the third year. Ten thousand received less than three doses. In the third year came an epidemic of whooping-cough. Diphtheria mortality which before toxoid was given was 14 to 17 per 100,000, is now about four to five. Whooping-cough mortality which was 20 to 23 per 100,000 in epidemic years and 11·2 in non-epidemic years came down to 7·8 and 2·7. Among the protected group, numbering 38,000, no death was recorded from either whooping-cough or diphtheria in 1943, 1944 and 1945. Among the non-protected children of the experimental group, numbering 145,000, the mortality rate per 100,000 for the two diseases was 15·8 and 19·2 respectively. The number of infections was markedly less, 55·8 per 100,000 as against 1,574·6 in the case of whooping-cough and in that of diphtheria 1·8 per 100,000 in the protected and 136 in the non-protected group.

Vaccination with the B.C.G. in South America.

M. M. BUENO (*Diseases of the Chest*, July-August, 1946) states that in Brazil, a country where tuberculosis is becoming epidemic at present, over 340,000 persons have been vaccinated with the bacillus of Calmette and Guérin. In several districts of Rio de Janeiro where 70% of the children have been vaccinated, active tuberculosis has been found in the proportion of one vaccinated child to five unvaccinated children.

F. B. GOMEZ (*ibidem*) states that in Uruguay over 160,000 children have been vaccinated with the bacillus of Calmette and Guérin. The vaccine is given systematically in the most important maternity hospital in the country in which 30% of the children of Montevideo are born (11% of all the children in the country): all of the newly born since 1940, totalling 17,000 children, have been vaccinated with the "B.C.G." and tattooed with indelible ink on the plantar aspect of the left great toe. The mortality from tuberculosis and among the vaccinated children in Montevideo is one-sixth that among the unvaccinated children who attend the same clinic and hospitals.

Food Infection from Cheese.

C. TUCKER *et alii* (*The Journal of the American Medical Association*, August 3, 1946) have reported an epidemic food infection due to *Salmonella typhimurium* in cheese. Typhoid fever epidemics have been traced previously to cheddar cheese. In the epidemic reported 250 cases of food infection occurred among residents in six towns in Tennessee; 100 cases in Lawrence County and 34 in Fulton County. The illness began suddenly with chills, fever, vomiting and diarrhœa. It lasted from three to ten days. No deaths occurred. All the patients had eaten cheese within twenty-four hours, and the *Salmonella typhimurium* was isolated from the cheese. The organisms remained viable in the cheese for 302 days.

British Medical Association News.

ANNUAL MEETING.

THE annual meeting of the Victorian Branch of the British Medical Association and of the Medical Society of Victoria was held at the Medical Society Hall, Albert Street, East Melbourne, on December 4, 1946, PROFESSOR P. MACCALLUM, the President, in the chair.

ELECTION OF OFFICE-BEARERS AND MEMBERS OF COUNCIL.

The Medical Secretary announced that the Council had elected the following office-bearers:

President: Dr. A. E. Coates.
Vice-Presidents: Dr. F. Kingsley Norris and Dr. Douglas Thomas.
Chairman of Council: Dr. H. C. Colville.
Honorary Treasurer: Dr. J. A. Cahill.
Honorary Secretary: Dr. R. F. Watson.

The Medical Secretary announced that the following had been elected members of the Council by the general body of members: Dr. Arthur Brown, Dr. Charles Byrne, Dr. A. E. Coates, Dr. H. C. Colville, Dr. John Dale, Dr. J. H. Gowland, Dr. J. S. Green, Dr. V. Hurley, Dr. L. W. Johnston, Professor P. MacCallum, Dr. F. Kingsley Norris, Dr. Kenneth Smith, Dr. Robert Southby, Dr. Douglas J. Thomas.

The Medical Secretary announced that the following had been elected members of the Council by the subdivisions: Dr. L. H. Ball, Dr. M. H. Box, Dr. J. A. Cahill, Dr. D. A. Carter, Dr. V. Davies, Dr. B. D. Fethers, Dr. G. Forsyth, Dr. P. Goodman, Dr. A. B. Hewitt, Dr. F. E. McAree, Dr. D. G. Mackellar, Dr. L. A. Neal, Dr. H. Searby, Dr. W. Sloss, Dr. G. Swinburne, Dr. R. F. Watson, Dr. G. R. Weigall, Dr. L. H. Westacott.

The Medical Secretary announced that the *ex-officio* members of the Council were: Dr. F. L. Davies, Dr. C. H. Mollison, Dr. J. Newman Morris, Dr. D. Roseby (Trustees of the Medical Society of Victoria), Dr. J. P. Major (Director, Australasian Medical Publishing Company, Limited).

The representative of the Victorian Medical Women's Society was Dr. Elizabeth McComas.

ANNUAL REPORT OF THE COUNCIL.

The annual report of the Council which had been circulated among members was received and adopted on the motion of Dr. R. F. Watson, seconded by Dr. T. G. Swinburne. The report is as follows:

The Council of the Branch and the committee of the society present the sixty-seventh annual report of the Branch and the ninety-first of the society.

Election.

At the annual meeting held last December, the following members of the Council and of the committee were elected: Dr. Arthur Brown, Dr. Charles Byrne, Dr. A. E. Coates, Dr. H. C. Colville, Dr. John Dale, Dr. J. H. Gowland, Dr. J. S. Green, Dr. Victor Hurley, Dr. L. W. Johnston, Professor P. MacCallum, Dr. F. Kingsley Norris, Dr. Kenneth Smith, Dr. R. Southby, Dr. Douglas Thomas.

The following were elected to represent the subdivisions: Dr. F. J. Bonnin, Dr. M. H. Box, Dr. J. A. Cahill, Dr. D. A. Carter, Dr. G. V. Davies, Dr. B. D. Fethers, Dr. P. Goodman, Dr. H. Boyd Graham, Dr. F. W. Grutzner, Dr. A. B. Hewitt, Dr. R. B. Knox, Dr. F. E. McAree, Dr. L. Neal, Dr. Henry Searby, Dr. W. Sloss, Dr. Guy Springthorpe, Dr. R. Watson, Dr. G. R. Weigall.

Under Rule 9 of the Branch, Council elected Dr. Elizabeth McComas, who was nominated by the Victorian Medical Women's Society.

The following are *ex-officio* members: the trustees of the Medical Society of Victoria (Dr. F. L. Davies, Dr. C. H. Mollison, Dr. J. Newman Morris and Dr. Roseby) and the representative of the Australasian Medical Publishing Company, Limited (Dr. J. P. Major).

Cooption.—At its first meeting the Council coopted Dr. W. D. G. Upjohn and Dr. E. Ettelson. In February Dr. Guy Springthorpe, who represented the Melbourne Central Subdivision, retired and Dr. George Swinburne was elected.

The Council elected the following office-bearers:

President: Professor Peter MacCallum.
Vice-Presidents: Dr. F. Kingsley Norris and Dr. A. E. Coates.
Chairman of Council: Dr. H. C. Colville.
Honorary Secretary: Dr. R. F. Watson.
Honorary Treasurer: Dr. J. A. Cahill.
Honorary Librarian:[1] Dr. Guy Springthorpe.

The executive consisted of the president, the immediate past president, Dr. John Dale, and other office-bearers.

Attendances at Council Meetings.

Twelve meetings were held, the following showing the attendances:

Dr. F. Kingsley Norris	12	Dr. J. Gowland	7
Dr. R. F. Watson	12	[1] Dr. George Swinburne	7
Dr. John Dale	11	Dr. C. Byrne	6
Dr. J. A. Cahill	12	Dr. John Green	6
Dr. H. C. Colville	12	Dr. A. B. Hewitt	6
Dr. F. L. Davies	12	Dr. A. E. Coates	5
Professor P. MacCallum	11	Dr. D. J. Thomas	5
Dr. Elizabeth McComas	11	Dr. P. Goodman	4
Dr. Robert Southby	11	Dr. J. P. Major	4
Dr. M. H. Box	10	Dr. J. Newman Morris	4
Dr. D. A. Carter	10	Dr. W. G. D. Upjohn	3
Dr. H. Boyd Graham	10	Dr. G. V. Davies	2
Dr. G. R. Weigall	10	Dr. W. Sloss	2
Dr. B. D. Fethers	9	[2] Dr. G. Springthorpe	2
Dr. F. E. McAree	9	Dr. F. W. Grutzner	7
Dr. D. Roseby	9	Dr. L. A. Neal	1
Dr. A. Brown	8	Dr. F. J. Bonnin	0
Dr. Victor Hurley	8	Dr. R. B. Knox	0
Dr. L. W. Johnston	8	Dr. C. H. Mollison	0
Dr. Kenneth Smith	8	Dr. Henry Searby	0
Dr. E. M. Ettelson	8		

[1] Appointed during the year.
[2] Resigned during the year.

The highest attendance at any one meeting was 27, and the average attendance was 23.

Appointment of Subcommittees.

The following subcommittees were appointed by the Council at the beginning of the year (the first-named acting as convenor of the subcommittee):

Ethics.—Dr. Major, Dr. F. L. Davies, Dr. Graham, Dr. Green, Dr. Morris, Dr. Smith and the executive.

Finance, House and Library.—Dr. Cahill, Dr. Smith, Dr. Springthorpe and Dr. Thomas. (On the retirement of Dr. Springthorpe, Dr. Norris was appointed.)

Legislative.—Dr. Dale, Dr. Colville, Dr. F. L. Davies, Dr. Gowland, Dr. Green and Dr. Watson.

Organization.—Dr. Watson, Dr. Roseby, Dr. Cahill, Dr. Colville, Dr. Box, Dr. Brown, Dr. Byrne, Dr. Dale, Dr. Fethers, Dr. Gowland, Dr. Graham, Dr. Green, Dr. Ettelson, Dr. Hurley, Dr. Johnston, Dr. McAree, Dr. McComas, Dr. Neal, Dr. Searby, Dr. Smith, Dr. Southby, Dr. Springthorpe, Dr. Weigall, and representatives of the country subdivisions. (On the retirement of Dr. Springthorpe, Dr. Swinburne was appointed.)

Science.—Professor MacCallum, Dr. Coates, Dr. Graham, Dr. Johnston, Dr. McAree, Dr. Norris, Dr. Searby, Dr. Springthorpe and Dr. Watson.

Hospital.—Dr. Graham, Dr. Colville, Dr. Ettelson, Dr. Hurley, Dr. Neal, Dr. Smith, Dr. Southby, Dr. Watson and Dr. Weigall.

Correspondence.—Dr. Colville and Dr. Watson.

Workers' Compensation.—Dr. Searby, Dr. Byrne, Dr. Colville and Dr. Gowland.

Publicity.—Dr. Dale, Dr. Ettelson, Dr. Springthorpe, Dr. Green, Dr. Thomas and the Medical Secretary.

Rehabilitation.—Dr. Johnston, Dr. Graham, Dr. Hurley, Dr. Norris, Professor MacCallum, Dr. Smith, Dr. Thomas and Dr. Weigall.

Appointments and Nominations.

Trustees of the Medical Society of Victoria.—Dr. F. L. Davies, Dr. C. H. Mollison, Dr. J. Newman Morris and Dr. D. Roseby.

Central Council, British Medical Association.—Dr. J. H. Anderson.

Federal Council.—Dr. F. L. Davies and Dr. Victor Hurley.

British Medical Agency.—Directors: Dr. C. H. Mollison (chairman), Dr. G. Robinson and Dr. C. H. Dickson. Manager: Mr. G. Feely.

British Medical Insurance Company of Victoria.—Directors: Dr. C. H. Mollison (chairman), Dr. Victor Hurley, Dr. L. S. Latham, Dr. J. Newman Morris, Dr. F. Kingsley Norris. Secretary: Mr. J. M. Ford.

Victorian Correspondent, "The Medical Journal of Australia".—Dr. H. Boyd Graham.

Victorian Correspondent, "British Medical Journal".—Dr. H. Boyd Graham.

[1] On the retirement from Council of Dr. Springthorpe, Dr. Douglas Thomas was elected Honorary Librarian.

Victorian Bush Nursing Association.—Dr. Elizabeth McComas.

Hospital Benefits Association.—Dr. J. A. Cahill, Dr. C. H. Dickson, Dr. F. Kingsley Norris and Dr. D. Roseby.

Ear, Nose and Throat Service of Victoria.—Dr. L. W. Johnston.

Electoral Board, Medical Staffing of Base Hospitals.—Dr. J. P. Major and Dr. F. Kingsley Norris.

Free Kindergarten Union.—Dr. H. Boyd Graham.

Victorian Baby Health Centres' Association.—Dr. H. Boyd Graham.

Melbourne University Union.—Graduates' Section: Dr. H. Douglas Stephens.

Victorian Institute of Hospital Almoners.—Dr. J. Newman Morris.

Lord Mayor's Fund.—Dr. J. Newman Morris.

Victorian Council for Mental Hygiene.—Dr. John Dale and Dr. A. P. Derham.

Melbourne Permanent Post-Graduate Committee.—Professor P. MacCallum, Dr. J. P. Major and Dr. B. Milne Sutherland.

Returned Medical Officers' Relief Fund, Advisory Committee.—Dr. C. H. Mollison, Dr. F. L. Davies and Dr. W. G. D. Upjohn.

Federal Medical War Relief Fund.—Dr. C. H. Mollison, Dr. F. L. Davies and Dr. W. G. D. Upjohn.

Australian Aerial Medical Services.—Dr. J. Newman Morris.

Nurses' Board.—Dr. John S. Green and Dr. W. W. S. Johnston.

Dietetic Association of Victoria.—Dr. John Dale.

Society for Crippled Children.—Dr. H. Boyd Graham.

Anti-Cancer Council of Victoria.—Dr. Victor Hurley and Dr. D. J. Thomas.

Opticians' Registration Board.—Dr. T. a'B. Travers and Dr. A. H. Joyce.

City Electoral Roll.—Dr. C. H. Mollison.

Masseurs' Registration Board.—Dr. C. H. Hembrow and Dr. F. May.

National Safety Council of Australia.—Professor Osborne.

Contract Practice Subcommittee, Federal.—Dr. C. H. Dickson.

Trustees, Income Insurance Fund.—Dr. C. H. Mollison, Dr. H. C. Colville, Dr. F. L. Davies, Dr. J. P. Major and Dr. B. Milne Sutherland.

Joint Insurance Adjudication Committee.—Dr. H. Searby, Dr. R. C. Brown and Dr. D. Roseby.

Branch Convocation.

The following were elected for the year 1946: Melbourne Central, Dr. Leonard Ball, Dr. C. J. O. Brown, Dr. C. H. Fitts, Dr. Lorna Lloyd Green, Dr. J. G. Hayden, Dr. L. S. Latham, Dr. T. G. Millar, Dr. F. Niall, Dr. H. Douglas Stephens, Dr. G. R. A. Syme, Dr. M. Tallent; North-Eastern Suburban, Dr. M. Ashkanasy and Dr. J. Cockerill; South Central Suburban, Dr. H. T. Chapman, Dr. E. Danby, Dr. A. J. Day, Dr. A. I. Green, Dr. J. Gavin Johnson, Dr. C. V. McKay; South-Eastern Suburban, Dr. J. Adamson, Dr. C. Evans, Dr. G. Foreman, Dr. E. Kirsner, Dr. J. K. D. MacKenzie, Dr. L. Nicholson, Dr. R. M. Shaw; Eastern Suburban, Dr. G. W. Ashton, Dr. W. L. Carrington, Dr. K. Hallam, Dr. W. Hewitt, Dr. H. Judkins, Dr. A. Langley, Dr. L. P. Wait, Dr. G. Watters; Southern Suburban, Dr. A. J. Carroll, Dr. W. H. Fitchett, Dr. L. Middleton, Dr. T. O. Sayle, Dr. N. Wilson; Western Suburban, Dr. J. H. Dorman, Dr. L. Joel; Northern Suburban, Dr. S. L. Fredman, Dr. J. O'Keefe, Dr. W. G. Sinclair, Dr. E. W. Sutcliffe, Dr. A. B. Swain; Geelong, Dr. R. L. Fulton, Dr. W. H. Long; South-Western Country, Dr. A. Brauer, Dr. L. Westacott; Goulburn, Dr. D. McKellar; Gippsland, Dr. J. M. Andrew, Dr. L. Langmore; North-Eastern Country, Dr. J. Kelly; North-Western Country, Dr. B. Hutton Jones, Dr. H. W. Matheson; Ballarat, Dr. W. T. Greening, Dr. A. C. H. Salter; Bendigo, Dr. A. W. Baker, Dr. A. E. Lincoln, Dr. W. J. Long.

Membership Roll.

The number of members on the roll at October 31, 1946, was 1,949, which is 102 more than last year. One hundred and ninety-three names were added (131 by election, 5 members were reinstated by payment of arrears and 58 were transferred from other States), and 92 names were removed (18 by death, 6 by resignation, 63 by transfer to other States and 5 members allowed their subscriptions to fall into arrears).

Honorary medical members now number 27.
Honorary student associates number 3.
Provisional members number 11.

The death of the following members and former members is recorded with regret: Professor R. Marshall Allan, Dr. Vera Scantlebury Brown, Dr. E. D. Byrne, Dr. A. W. Connelly, Dr. W. R. Groves, Dr. George V. Halford, Sir John Harris, Dr. W. E. Harrison, Dr. J. J. Kelly, Dr. A. L. Kenny, Dr. F. L. Langley, Dr. E. McDonald, Dr. D. R. McFarlane, Dr. H. H. McWilliams, Dr. Gray Nicholls, Dr. N. J. Parker, Dr. E. Rogerson, Dr. K. C. Ross, Dr. E. W. Sutcliffe, Dr. Tate Sutherland, Dr. C. F. Tucker, Dr. T. A. Wilson, Dr. R. J. Wright-Smith.

After the deaths of Professor R. Marshall Allan and Dr. A. L. Kenny, the following minutes were recorded:

> The Council of the Victorian Branch of the British Medical Association records with profound regret the death of Robert Marshall Allan, M.C., M.D., F.R.C.S. (Edinburgh), F.R.A.C.S., F.A.C.S., F.R.C.O.G., who as the first Professor of Obstetrics in the University of Melbourne, as a member of the Branch Council, and as Honorary Secretary and President of the Branch, rendered most valuable services to the medical profession and the people of Victoria. His influence on the teaching of obstetrics will remain as an enduring monument and his students and colleagues will remember him with affection. The Council offers its sympathy to his wife and children.
>
> The Council of the Victorian Branch of the British Medical Association records with regret the death of Augustus Leo Kenny, C.B.E., K.G.C.S.G., K.S.G., M.B., Ch.B., F.R.A.C.S., who, as President of the Medical Society of Victoria in 1899, a member of the Council of the Victorian Branch of the British Medical Association for many years and its President in 1914, and Honorary General Secretary of the Australasian Medical Congress of 1923, rendered distinguished service to the medical profession in Victoria. The Council extends its sympathy to his family.

Roll of Honour, 1939-1945.

Major Eric Balhache, Flight Lieutenant W. R. Brodrick, Major J. F. Chambers, Lieutenant-Colonel Eric Cooper, Captain W. G. Cuscaden, Captain J. F. Davies, Captain C. S. Donald, Major-General R. M. Downes, Surgeon Lieutenant J. M. Gaskell, Surgeon Lieutenant Commander F. H. Genge, Surgeon Commander J. R. Hasker, Captain J. C. R. Joyce, Captain G. L. Lindon, Flight Lieutenant F. H. Lord, Major H. F. G. McDonald, Captain D. R. McFarlane, Surgeon Lieutenant W. J. McLaren-Robinson, Major N. V. McKenna, Surgeon Lieutenant D. N. McKenzie, Lieutenant-Colonel C. P. Manson, Captain A. D. Mawson, Captain J. F. Park, Colonel D. C. Pigdon, Lieutenant-Colonel K. C. Ross, Captain D. J. Shale, Major Z. Schwartz, Captain H. N. Silverman, Flight Lieutenant Stuart Thomson, Surgeon Lieutenant Commander E. M. Tymms, Major C. E. Watson, Captain S. I. Weir.

War Memorial.

Plans are being prepared for the names of those Victorian medical officers who died on service in the war of 1939-1945 to be added to the memorial in the foyer of the Medical Society Hall to the men who died in the 1914-1918 war.

Honours Conferred by His Majesty the King for Services Rendered during the 1939-1945 War.

C.B.—Air Vice-Marshal T. E. V. Hurley, C.M.G., V.D.

C.B.E.—Colonel A. P. Derham, M.C., Brigadier H. C. Disher, E.D., Brigadier H. G. Furnell, D.S.O., Colonel A. H. Green, Brigadier W. Hailes, D.S.O., Colonel J. G. Hayden, Brigadier W. W. S. Johnston, D.S.O., M.C., Brigadier F. K. Norris, D.S.O., E.D., Colonel N. L. Speirs, V.D.

D.S.O.—Lieutenant-Colonel K. J. J. Dorney, Colonel W. W. Lempriere, Major F. Douglas Stephens.

O.B.E.—Lieutenant-Colonel A. E. Coates, Surgeon Lieutenant-Commander J. S. Guest, Colonel C. W. B. Littlejohn, M.C., Wing Commander R. R. Macdonald, Lieutenant-Colonel W. Refshauge, Wing Commander S. F. Reid, Lieutenant-Colonel R. Smibert, Lieutenant-Colonel J. Glyn White.

M.B.E.—Colonel J. M. Blair, Flight Lieutenant J. Grantley Shelton, Lieutenant-Colonel J. O. Smith, Colonel Ian Wood.

D.S.C.—Surgeon Lieutenant-Commander E. M. Tymms.

M.C.—Major J. F. Connell, Major V. E. Sampson.

Retirement of Dr. C. H. Mollison as Honorary Treasurer.

After fifty-three years' continuous service as honorary treasurer of the Medical Society of Victoria and the Victorian Branch of the British Medical Association, Dr. C. H. Mollison

declined reappointment, and the Council recorded the following special minute:

> In accepting the resignation of Crawford Henry Mollison as Honorary Treasurer of the Medical Society of Victoria and of the Victorian Branch of the British Medical Association, an office held by him from 1892 until 1945, the Council records with gratitude its appreciation of the work he has performed on its behalf and on behalf of the members of the Association in Victoria. The esteem in which Dr. Mollison is held by his colleagues was recognized by the Federal Council when it awarded him the Gold Medal of the Association in 1943, and the medical profession and the people of Victoria owe him a great debt as the doyen of pathologists.

Congratulations.

During 1946 the Council had pleasure in conveying congratulations to Professor G. R. Cameron, Fellow of the Royal Society; Dr. H. M. Hewlett on his completion of fifty years of radiological practice; and Dr. E. Graeme Robertson, Fellow of the Royal College of Physicians.

The Stawell Memorial Prize.

The Stawell Memorial Prize for 1945 was awarded to Lieutenant-Colonel R. R. Andrew, the subject of the prize essay being "The Clinical and Pathological Features of the Dysenteries".

Meetings of the Branch.

The following meetings were held:

February.—"Clinical Lessons from Prisoner-of-War Hospitals in the Far East", Dr. A. E. Coates.

March.—"The Responsibility of the Doctor in Regard to Medical Rehabilitation in Hospital and Private Practice", Lieutenant-Colonel Douglas Galbraith. A special Branch meeting was also held in March at which Brigadier N. Hamilton Fairley spoke on "Recent Researches in Malaria Chemotherapy undertaken by L.H.Q. Medical Research Unit (Cairns)".

April.—"Recent Developments in Tuberculosis in Canada and the U.S.A.", Dr. Maxwell James and Dr. C. J. Officer Brown. A special Branch meeting was held in April to consider the *Hospital Benefits Act*, 1945.

May.—Dr. A. P. Derham, Dr. Charles Osborn and Dr. J. Glyn White spoke on "Singapore and After", "The Fall of Singapore from the Surgeon's Point of View", and "Administrative and Clinical Problems in Australian and British Prisoner-of-War Camps in Singapore, 1942 to 1945".

June.—"Penicillin, Streptomycin and other Antibiotic Agents", Dr. E. V. Keogh.

July.—"Surgery in Two World Wars", Dr. C. W. B. Littlejohn.

August.—"The Diagnosis, Prevention and Treatment of Puerperal Sepsis", Dr. A. M. Hill and Miss Hildred Butler, B.Sc.

September.—"Physical Medicine", Dr. Frank May.

October.—The thirteenth Sir Richard Stawell Oration: "Fundamental Principles in Medical Practice", Dr. A. E. Coates.

November.—"Medical Services in Great Britain: Views of the Government and of the Profession", Dr. J. G. Hunter.

Clinical Meeting.—In October a clinical meeting was arranged by the Royal Melbourne Hospital Old Students' Association at the Royal Melbourne Hospital.

Also in October Professor MacCallum and the staff of the Department of Pathology, University of Melbourne, arranged a demonstration in the department.

Business of Council.

The action taken by the Attorney-General of Victoria, on the relation of office-bearers of the Medical Society of Victoria, to test the constitutionality of the *Pharmaceutical Benefits Act*, resulted in a decision adverse to the Commonwealth Government, and the "free medicine" scheme was not proceeded with. The passage of the Social Services Referendum, giving additional constitutional powers to the Commonwealth Government, may, however, lead to further developments, both in relation to pharmaceutical benefits and to medical services, but beyond the fact that the policy of the Commonwealth Government is known to be the provision of a complete medical service to every person in the community without cost to the individual, the organized medical profession has not yet been informed of the future intentions of the Government.

Following the passage of the necessary complementary legislation by the Parliament of Victoria, the *Hospital Benefits Act*, under which the means test for admission to public hospitals was abolished, came into operation on January 1, 1946. The question of the future of honorary medical services was discussed at a special general meeting of the Branch in April, and subsequently the views of members were sought by referendum. As, however, the evidence available indicated that the abolition of the means test had so far made little if any difference in the class of person being admitted to public hospitals, and, as the result of the referendum of members gave no clear mandate to the Council to act in the matter, a waiting policy has been adopted.

Another referendum of members was held during the year, as the Council desired guidance on the question of adopting a policy of open opposition to the referendum proposals of the Commonwealth Government, but it was considered again that the result of the referendum could not be regarded as a mandate for the Council to take any action in the matter.

The *Workers' Compensation Acts* of the State of Victoria were further amended during the year and now provide substantially increased benefits, including medical benefits, to injured "workers". Details of the new legislation were transmitted to members by circular.

Following inquiry, the Pharmacy Board of Victoria was informed that it was considered that the Dangerous Drugs Regulations, which were made more stringent in 1945, should not be relaxed.

Negotiations have now been completed with the Repatriation Commission by the Federal Council for the provision of a medical service to the dependants of members of the forces who lost their lives in the war of 1939-1945, and for the extension of the services and increase in the number of local medical officers. Members of the Branch were advised of the arrangements made by the Federal Council and their participation in the schemes invited.

The grave shortage of hospital accommodation in the community occasioned in part by the shortage of nurses has been a matter of serious consideration by the Council throughout the year. A conference was sought with the Charities Board and the Council was represented at a series of meetings convened by the Minister of Health to devise plans to overcome the shortage of nurses and attract recruits to the nursing profession.

The managers of private and denominational hospitals in the metropolitan area were circularized during the year and asked to hold a percentage of beds unbooked to provide accommodation for urgent cases, but the response to that request was disappointing.

Although the Public Service Board in 1945 granted some increases in salary for medical officers employed by the Government of Victoria, there are still many anomalies in the various branches of the Health Department, and representations were made to the Government urging the removal of those anomalies.

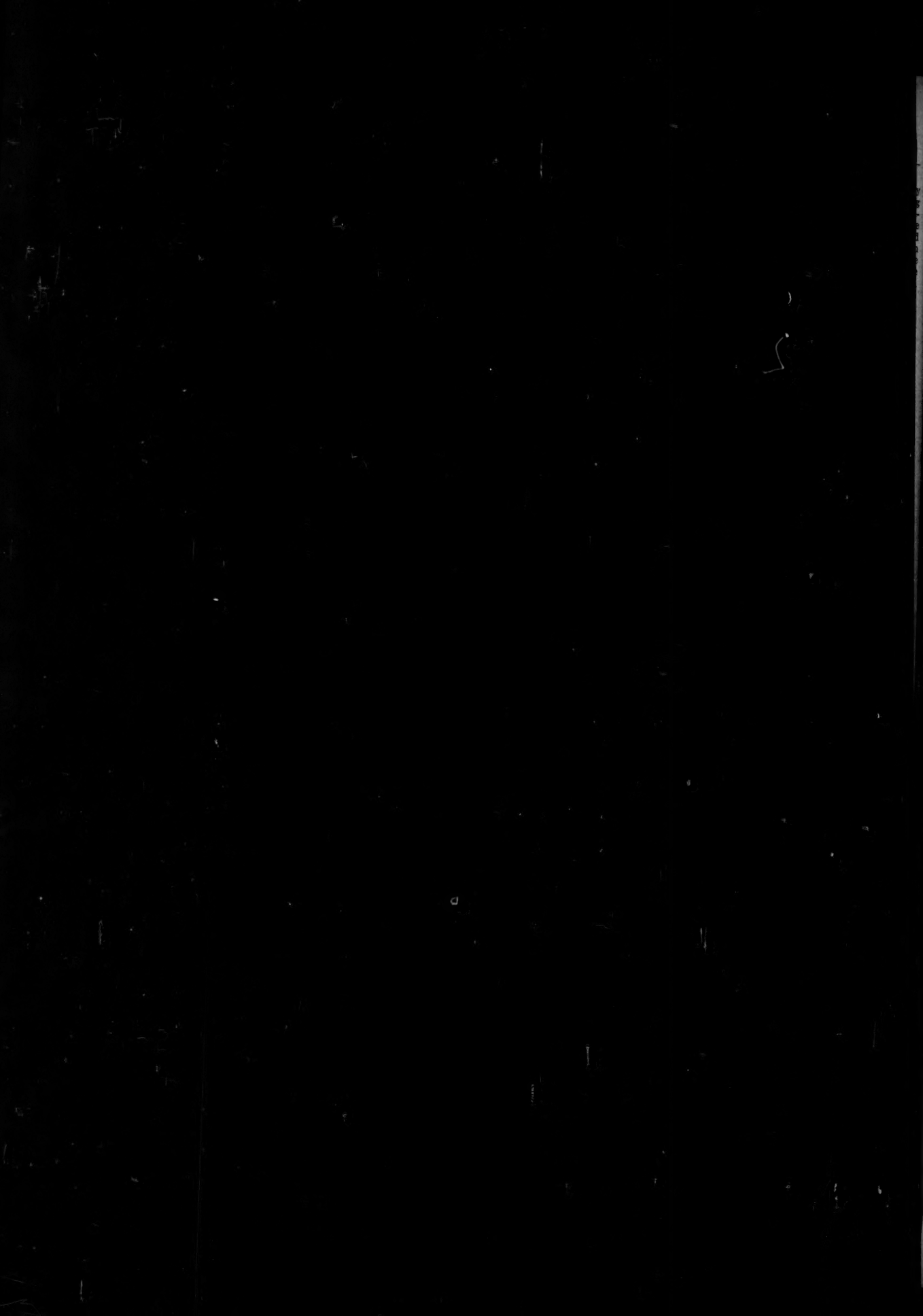
The medical profession, in common with other members of the community, is embarrassed by the lack of housing accommodation, and, following representations, the Minister of Housing stated that he would give sympathetic consideration to any medical practitioner seeking a permit to build a house from which medical practice would be conducted.

The Housing Commission of Victoria sought advice regarding provision of medical service in areas under its control, and a meeting of members interested was held. The decision of that meeting was that the Commission should set aside blocks for purchase by doctors in areas under its control, and also, that it should build consulting rooms in such areas, and those decisions were transmitted to the Commission.

The Council concurred with the proposals of the Government of Victoria to grant registration, under the *Medical Acts* of Victoria, to the holders of licences under the National Security (Alien Doctors) Regulations under the *National Security Act* who had practised in Victoria while holding such licences. The necessary legislation is at present before Parliament.

Following the suggestion of Dr. A. M. Wilson, who delivered the first Fetherston Memorial Lecture in 1945, representations were made to the Health Department suggesting that a committee be established to inquire into maternal deaths in childbirth. The matter was later referred to the National Health and Medical Research Council by the Chief Health Officer of Victoria, and it is hoped that such committee will be established.

A conference was convened between Professor Rubbo, Professor of Bacteriology in the University of Melbourne, and members engaged in the private practice of clinical pathology to discuss the future activities of the Department of Bacteriology in relation to the work it undertakes for private practitioners, and a mutually acceptable plan was agreed upon.



Concerned at the incidence of goitre in Gippsland, members practising in that subdivision requested that an iodine survey of the area be made, and following representations the matter has been taken up by the Australian Institute of Anatomy, Canberra, which will conduct an investigation.

The Australian Dental Association was supported in its representations to the Government of Victoria protesting against the proposal to grant additional privileges to "permitees" under the *Dental Act*.

During the year Council gave approval to the formation of a Section of Clinical Pathology.

The activities of the Victorian Medical Coordination Committee terminated in August and the Branch office is now making recommendations regarding the purchase of new motor-cars *et cetera* formerly made by that committee.

Throughout the year ex-service medical officers have been advised and, so far as lies within the power of the Association, aided to reestablish themselves in civil practice, the leasing of Webster House, 85, Spring Street, by the trustees of the Medical Society of Victoria having provided accommodation for over thirty men engaged in specialist practice. Valuable help has also been rendered by the British Medical Agency of Victoria, and arrangements for the establishment of a Medical Practice Finance Company have been completed. The Federal Council has been requested to renew its representations for the publication of supplementary telephone lists, and the Branch distributed to members a list of the names, addresses and telephone numbers of ex-service members who had resumed practice, with an indication of the type of their practice. A supplementary list will be distributed at a later date.

The above references relate only to the major activities of the Council, the subcommittees and executive dealing with a great many minor matters.

Federal Council.

The Federal Council met in March in Sydney and in November in Adelaide. A full report of the proceedings of the March meeting appeared in THE MEDICAL JOURNAL OF AUSTRALIA of April 20, 1946, and a report of the November meeting will be published shortly.

Throughout the year members have been invited to subscribe to the Federal Medical War Relief Fund, which has been established by the Federal Council to provide assistance to ex-service medical officers and their dependants, and up to October 31, 363 members of the Victorian Branch had subscribed £4,104.

Reports of Subdivisions.

Metropolitan.

South-Eastern.—The annual meeting of the subdivision was held on March 19, ten members being present. The following office-bearers were elected: Chairman, Dr. George Patterson; Vice-Chairmen, Dr. V. C. Brown and Dr. E. Kirsner; Honorary Secretary, Dr. B. D. Fethers. As the meeting was poorly attended, it was decided not to hold any golf tournament or other social event this year. After a general discussion of the effects of the abolition of the means test, the meeting terminated.

B. D. FETHERS,
Honorary Secretary.

South Central.—Office-bearers: Chairman, Dr. C. Worch; Honorary Secretary, Dr. F. E. McAree. The annual meeting of the subdivision was held at the home of Dr. Harley Grover, Port Melbourne, on September 20, 1946, and was attended chiefly by members who, owing to geographical distribution, came from "South of the Border" (St. Kilda Road). One of the objects of the meeting was to bring together and to introduce and welcome about a dozen new members, all ex-servicemen, who had lately settled in the South Melbourne, Port Melbourne, Middle Park and Albert Park districts. After the election of officers for the ensuing year Dr. Dickson gave an interesting address on medical affairs up to date. He also answered numerous questions and his visit was much appreciated. The retiring chairman, Dr. Worch, then presented, on behalf of the older members of South Melbourne, Port Melbourne, Middle Park and Albert Park, a handsome tray of inlaid Australian woods to Dr. E. Danby. Eulogistic remarks in support were made by the newly elected chairman, Dr. Grover, Dr. W. L. Potter and several others. Dr. Danby's successor was also welcomed. Dr. Grover and his wife then entertained the gathering at supper.

FRANCIS E. MCAREE,
Honorary Secretary.

Western.—Office-bearers: Chairman, Dr. M. H. Box; Honorary Secretary, Dr. M. J. Costelloe. Meetings of the subdivision were held during the year to discuss the *Hospital Benefits Act*, medical benefits for widows, widowed mothers and orphans of the 1939-1945 war, and a proposed scale of fees. Members of the subdivision met the committee of the Footscray and District Out-Patient Welfare Centre to inspect and discuss plans for the hospital to be erected in Footscray.

M. J. COSTELLOE,
Honorary Secretary.

Country.

South-Western.—During the latter part of the war the activities of the South-Western subdivision were in abeyance, the last meeting being held in October, 1941. A special meeting was held at Warrnambool in May, 1945, when Dr. C. H. Dickson spoke on matters in connexion with the *Pharmaceutical Benefits Act*, 1944, and also on the abolition of the "means test" in public hospitals. In May, 1946, a well-attended meeting was held at Hamilton, where Dr. I. Maxwell spoke on "Recent Therapeutic Advances". A two-day meeting arranged by the Melbourne Permanent Post-Graduate Committee was held at Warrnambool in August of this year. Mr. C. W. B. Littlejohn spoke on "Low Back Pain", Dr. H. M. James on "Tuberculosis", Mr. E. A. Hughes-Jones on "Intestinal Obstruction", and Dr. J. Gavin Johnson on "The Endocrines". Dr. C. H. Dickson was also present and gave a very informative address on medico-political matters, which was much appreciated by the members. Dr. Norris and Dr. Thomas were welcome guests at this meeting and spoke on the present and future activities of the Melbourne Permanent Post-Graduate Committee in relation to country subdivisions. This was a very successful and enjoyable meeting, and, it is hoped, the forerunner of similar ones. Most of the men who served in the services have now returned to practice, and there are also a number of new men, many of them assistants in established practices. There has been a marked increase in interest in the meetings held since the war and the attendances have been very satisfactory.

GERALD WATSON,
Honorary Secretary.

Ballarat.—Office-bearers: Chairman, G. R. Davidson; Honorary Secretary, C. E. Richardson. With the return of members to civilian practice and new practitioners commencing practice, the various activities of this subdivision are again commencing. Hospital appointments have been completed and the Clinical Society has conducted several very successful meetings. It is hoped to resume branch meetings in the near future. The chairman-elect for 1946-1947 is Dr. G. T. James.

C. E. RICHARDSON,
Honorary Secretary.

Geelong.—Chairman, Dr. R. L. Fulton; Honorary Secretary, Dr. D. Alan Kidd. During the year seven business meetings were held and were well attended, and in addition eight lectures were given under the direction of the Melbourne Permanent Post-Graduate Committee, and proved to be a great success. The other outstanding feature of the year was the number of prominent medical practitioners who have retired from active practice and the number of new men who have commenced practice in this area. A very enjoyable function was given in honour of the men who were retiring, and Dr. Darby, Dr. Elvins, Dr. McPhee, Dr. Long and Dr. Purnell were the guests of the subdivision at a dinner party. All had done a great deal in keeping up the standard of the profession in the area, as well as in Victoria, and in this regard Dr. McPhee was specially mentioned for his work locally and as a past president of the British Medical Association (Victorian Branch). The local library has benefited during the year by an increase in local subscriptions and by a very generous grant from the British Medical Insurance Company.

D. ALAN KIDD,
Honorary Secretary.

Gippsland.—Office-bearers: Chairman, Dr. J. M. Andrew; Honorary Secretary, Dr. D. I. Fitzpatrick. Combined clinical and business meetings, which were well attended, were held on November 24, 1945, when Dr. Paul Jones spoke on "Goitre, Especially Prophylaxis", on August 3, 1946, when Dr. R. G. Worcester spoke on "Structure and Functions of the Pelvic Floor", and on October 26, 1946, when Dr. J. I. Connor spoke on "Skin Diseases". In March a very successful meeting was arranged at Sale by the Melbourne Permanent Post-Graduate Committee, covering two days, when seven lectures were given. On September 20 a conference was held at Yallourn between the chairman of the subdivision and members from Sale and Bairnsdale in relation to a goitre survey of Gippsland, which will be undertaken by the Commonwealth Health Department.

D. I. FITZPATRICK,
Honorary Secretary.

Reports of Sections.

Ear, Nose and Throat.—Dr. Cecil Cantor is President for 1946-1947, and two meetings were held during the year. There are 32 members of the section.

ERIC GUTTERIDGE,
Honorary Secretary.

Radiology.—Office-bearers: President, Dr. R. Crisp; Treasurer, Dr. B. A. Sarjeant; Secretary, Dr. G. Villiers. The pre-war procedure of holding meetings of the section on the second Tuesday of each month was resumed this year, and at the first meeting in February office-bearers were elected.

During the year several meetings have been devoted to discussion and plans for an improved standard of teaching and instruction for the D.D.R. and D.R.E. in conjunction with the Melbourne Permanent Post-Graduate Committee.

A dinner was tendered to Dr. H. Hewlett to celebrate the fiftieth anniversary of his association with radiology, the toasts being proposed by Dr. J. O'Sullivan, Dr. C. Macdonald and Dr. K. H. Hallam. Dr. Val McDowall responded for the interstate guests.

GWYNNE VILLIERS,
Honorary Secretary.

Ophthalmology.—The year 1945-1946 has been most interesting for the Section of Ophthalmology, and several instructive and interesting meetings were held at the Eye and Ear Hospital. The most important matter discussed was the condition in prisoners-of-war which we now know as retrobulbar neuritis due to avitaminosis; and the report by Dr. R. Orr, who was an oculist at Changi Prisoner-of-War Camp, of his series of cases of this disease, the result of many thousands of examinations, was a monument to very hard work under most difficult circumstances. Dr. Roy Maynard demonstrated sections of optic nerve, chiasma and tract from cases that died.

Other meetings included demonstration lectures of malignancy of the eye and adnexa treated with radium, by Dr. A. Joyce, Dr. Kaye Scott and Dr. J. O'Sullivan.

Teaching for the Diploma of Ophthalmology was also discussed during the year, and meetings were arranged with the Faculty of Medicine with a view to more cooperation with the university on this subject. Post-graduate lectures have been given by the members for students during the course of instruction for the D.O.

S. R. GERSTMAN,
Honorary Secretary.

Medical Society of Victoria Library.

The library continues to render valuable service to members, particularly to those members engaged in post-graduate studies, and during the past year 110 new books have been added.

Members of the Library Advisory Subcommittee are thanked for their assistance in the selection of new books.

Presentations to the library have been made by the following, to whom thanks are tendered: Army Medical Directorate, Australian Institute of Anatomy, Australian Institute of Mining and Metallurgy, Baker Institute, British Medical Association, New South Wales Branch, British Medical Association, Western Australian Branch, Professor F. M. Burnet, Mrs. R. M. Downes, Dr. John Gowland, Dr. T. Heale, the Editor of THE MEDICAL JOURNAL OF AUSTRALIA, the Royal Australasian College of Physicians, Dame Jean Macnamara, Dr. Bruce Robinson, Royal Australasian College of Surgeons, Dr. G. E. M. Scott, Dr. Guy Springthorpe, Dr. Douglas Thomas, Dr. W. G. D. Upjohn, the United States Information Library.

During the year 1,980 books have been borrowed, and much assistance given by the librarian to many members requiring references to special subjects.

D. J. THOMAS,
Honorary Librarian.

Victorian Medical Benevolent Association.

During the year the work of the Association has been carried on uneventfully. One aged and very infirm person died and the allowance which was being made to him has been continued to his widow. At present there are eight persons receiving monthly allowances ranging from £2 10s to £4, and in one instance £8. These allowances are needed in all cases to lift the recipient from poverty to a level of modest comfort. In addition, a Christmas gift of £2 each was made and was highly appreciated. Special gifts to the permanent fund have been made by members, in particular, one of £86 and another of £400, in addition to £100 donated in 1944.

EDWARD L. GAULT,
Honorary Secretary.

British Medical Insurance Company of Victoria, Limited.

The main points disclosed in the report of the directors of the British Medical Insurance Company of Victoria, Limited, whose profit for the year ended April 30 last was £1,105 17s. 8d., are as follow.

Donations to the Medical Society of Victoria were:

	£	s.	d.
Books for library	151	10	10
Cash	3,030	0	0
Car attendant	33	10	0
Geelong Subdivision library account	25	0	0

Up to date the company has given books to the value of £1,617 and contributed £8,693 in cash to the Medical Society of Victoria, donated £100 to the Melbourne Permanent Post-Graduate Committee and £202 to army hospital units for the purchase of medical books. It has also taken up debentures of the Medical Society to the value of £3,350 upon which it is accepting interest at the rate of only 1% *per annum*, which, of course, saves the Medical Society a considerable sum.

The directors feel that members of the British Medical Association will be interested to know of the benefits that they have indirectly received through the activities of this company, and feel sure that the knowledge will strengthen the already solid support given by the profession.

The company is able to handle any general insurance business.

J. M. FORD,
Secretary.

The Melbourne Permanent Post-Graduate Committee.

The following report, furnished by the director, is published on behalf of the committee.

During 1946 the activities of the committee have been concerned mainly with the provision of refresher courses for medical officers released from the services. To date 463 medical officers have been accommodated in general refresher courses and at the various special hospitals.

Courses have been conducted in higher degrees and diplomas and these have been very well attended. Country courses at Sale, Warrnambool, Bendigo, Geelong and Flinders Naval Depot were appreciated.

During 1947 the general refresher courses will be conducted from February to May. Late afternoon courses in special subjects will be held throughout the year. An intensive general refresher course and an intensive refresher course at the Women's Hospital will be conducted during August and October respectively. During August it is anticipated that an overseas lecturer from the United States of America will be available for a short course in some medical subjects.

Country courses will be held at Geelong, Ballarat, Sale, Bendigo, Mildura, Horsham and Warrnambool during the year 1947.

Courses have been arranged for all the higher degrees and diplomas. The detailed syllabus of these various activities will be available before the end of the year.

The Council records its appreciation of the good work done by the Medical Secretary and the office staff during a particularly onerous year. The issuing of authorities to obtain supplies of petrol, new cars and other services has made much extra work necessary.

PETER MACCALLUM, President.
ROY F. WATSON, Honorary Secretary.
C. H. DICKSON, Medical Secretary.

INSTALLATION OF THE PRESIDENT FOR 1947.

Professor P. MacCallum said that Dr. A. E. Coates had been elected president for the ensuing year. Dr. Coates was, however, absent in Japan, giving evidence at war trials. Professor MacCallum asked Dr. F. Kingsley Norris to occupy the chair in Dr. Coates's absence. Dr. Coates had been elected president in 1941, but his departure with the Australian Imperial Force had precluded his taking office in that year and Dr. H. Boyd Graham had acted for him.

PRESIDENT'S ADDRESS.

Professor P. MacCallum then read his retiring president's address (see page 65). Dr. F. Kingsley Norris thanked Professor MacCallum for his address.

VOTES OF THANKS.

Dr. John Dale moved and Dr. J. Newman Morris seconded a vote of thanks to the retiring members of the Council, Dr. E. Ettelson, Dr. W. D. G. Upjohn, Dr. H. Boyd Graham and Dr. Guy Springthorpe, for their services to the Branch while members of the Council. The vote of thanks was carried by acclamation.

NOTICE.

THE General Secretary of the Federal Council of the British Medical Association in Australia has announced that the following medical practitioners have been released from full-time duty with His Majesty's Forces and have resumed civil practice as from the dates mentioned:

Dr. A. M. Dan, 346, Gardener's Road, Kingsford, New South Wales (December 1, 1946).
Dr. Helen Taylor, 135, Macquarie Street, Sydney (January 1, 1947).
Dr. Bruce Hall, "Craignish", 185, Macquarie Street, Sydney (November 1, 1946).
Dr. H. G. Marsh, "Craignish", 185, Macquarie Street, Sydney (July 1, 1946).
Dr. W. E. Fisher, 151, Macquarie Street, Sydney (January 14, 1947).
Dr. R. M. Rawle, 143, Macquarie Street, Sydney (January 1, 1947).

Naval, Military and Air Force.

APPOINTMENTS.

THE undermentioned appointments, changes *et cetera* have been promulgated in the *Commonwealth of Australia Gazette*, Number 2, of January 3, 1947.

ROYAL AUSTRALIAN AIR FORCE.

Citizen Air Force: Medical Branch.

Temporary Squadron Leader D. C. Trainor (261653) is called up from the Reserve to the Active List for part-time duties with effect from 26th January, 1944.

Flight Lieutenant W. Parker-Smith (267411) is called up from the Reserve to the Active List for full-time duties with effect from 20th October, 1943.

Flight Lieutenant D. R. Sheumack (267516) is called up from the Reserve to the Active List for full-time duties with effect from 6th August, 1944.

The appointments of the following officers are terminated on demobilization with effect from the dates indicated: Temporary Squadron Leader Acting Wing Commander A. E. Dickmann (252396), 8th November, 1946, (Flight Lieutenants, Acting Squadron Leaders) E. Dennis (296288), 5th November, 1946, A. B. Bourke (256377), 12th November, 1946, (Flight Lieutenants) D. R. Sheumack (267516), 25th September, 1946, W. Parker-Smith (267411), 27th September, 1946, H. McK. Carey (267262), 4th November, 1946, R. W. E. Manser (257479), 11th November, 1946.

Reserve: Medical Branch.

The following officers are appointed to commissions with the ranks as shown with effect from the dates indicated: (Temporary Squadron Leaders) Frederick Joseph Collett (263257), William George Gailey (262375), Archibald Keverall McIntyre (262064), Charles Victor Watson Brown (271467), 1st November, 1946, Arthur Ewins Dickmann (252396), 9th November, 1946, (Flight Lieutenant) Owen Wheatley Bowering (285170), 1st November, 1946.—(Ex. Min. No. 283—Approved 11th December, 1946.)

Post-Graduate Work.

THE MELBOURNE PERMANENT POST-GRADUATE COMMITTEE.

Programme for February.

THE Melbourne Permanent Post-Graduate Committee has arranged the following programme for February, 1947.

Continuous Refresher Course.

Clinical demonstrations will be conducted throughout the month at the Royal Melbourne Hospital, the Alfred Hospital, Saint Vincent's Hospital and the Children's Hospital, and at the Pharmacy College. The fee for the course will be two and a half guineas per week.

Late Afternoon Course.

Dr. Bryan Keon-Cohen will conduct a course on "The Hazards of Athletics and Common Orthopædic Problems" at the Medical Society Hall, Albert Street, East Melbourne, at 4.30 p.m. on the following Thursdays: February 20, "Hazards of Athletics"; February 27, "Recent Advances in Adult Orthopædics"; March 6, "End Results of Common Orthopædic Procedures"; March 13, "Highlights in Fracture Treatment". The fee for the course will be two guineas.

Lecture at Camperdown.

On Saturday, February 15, Dr. Bryan Keon-Cohen will lecture on "Common Foot Disabilities". The fee for this lecture is 10s. 6d. Those wishing to attend should notify Dr. G. Watson, secretary of the South-Western Subdivision of the Victorian Branch of the British Medical Association, at "Malahide", Camperdown.

Course at Ballarat.

A week-end course will be conducted at Ballarat:

Saturday, February 22.—2.30 p.m.: "Turns", by Dr. L. B. Cox; 8 p.m.: "Common Foot Disabilities", by Dr. B. Keon-Cohen.
Sunday, February 23.—10 a.m.: "Tuberculosis in Children", by Dr. J. W. Grieve; 2 p.m.: "Toxæmias of Pregnancy", by Dr. A. Hill.

The fee for this course is two guineas, and applications for enrolment should be made to the secretary of the subdivision of the Victorian Branch of the British Medical Association, Dr. C. E. Richardson, City Hall Buildings, Sturt Street, Ballarat.

Courses for D.L.O., Part II, and D.P.M., Part II.

Courses commenced in 1946 for D.L.O., Part II, and D.P.M., Part II, will be continued.

Applications for Courses.

Application for any of these courses should be made at least two weeks before the commencement of the course to the Secretary of the Melbourne Permanent Post-Graduate committee, College of Surgeons, Spring Street, Melbourne, C.1 (telephones: JM 1547 and JM 1548). The fee should accompany the application, except in those cases in which it is covered by Commonwealth Reconstruction Training Scheme entitlements, when attention should be drawn to this fact.

Special Correspondence.

CANADA LETTER.

FROM OUR SPECIAL CORRESPONDENT.

CANADA has become anniversary conscious in the past month, with our Canadian Broadcasting Corporation's tenth anniversary heading the list. As an educational and health-promoting agency it has proven itself. It has a good future provided it is given the financial support which it merits and is judged by its fruits rather than by the propaganda of wealthy "commercial" stations whose books are not open to parliamentary scrutiny.

The first annual report on family allowances shows that $232,735,314 was paid to 1,423,159 families, averaging $13.97 per family per month or $5.96 per child. Federal authorities believe that the increased consumption of fluid milk in the past year and the improved school attendance speak for the effect of the allowances on better food and clothing for children. The economic advisers of the Federal Government are reported to feel that family allowances keep money in rapid circulation, and are therefore much to be desired in the basic food, shelter and clothing trades.

Canada's overall infant mortality has reached the new low of 51 per thousand live births. Maternal mortality now stands at 2·3 per thousand live births. It is still the case that more than 3,200 babies are lost annually through prematurity.

One of the interesting wartime nutritional researches of the Royal Canadian Air Force has just been published by Group Captain Tisdall and his team at the Sick Children's Hospital in Toronto. Studying the fasting blood level of ascorbic acid by calorimetric methods in 372 recruits between the ages of twenty and thirty years, they found that in 50% of the occasions on which blood samples were taken over a fourteen months period, the average level was below 0·6 milligramme per millilitre. Many authorities feel that this amount is subnormal for adequate vitamin *C* metabolism. Palatability of low vitamin *C* diets was found to be so great that station personnel, not on trial vitamin *C* deficient diets,

had to be forcibly prevented from consuming the experimental foodstuffs reserved for the volunteer subjects. Increases or decreases in ascorbic acid intake were rapidly reflected in the blood plasma levels.

Enrolment of the population of Saskatchewan for its compulsory system of hospital insurance is rapidly reaching completion. The plan commences January 1, 1947. The full-time Public Health Service of the Saskatchewan Government is getting results in the field of immunization in districts where it is functioning. After the first year of its trial, the numbers immunized in a full-time area exceed those where only a part-time service is maintained by two to three times. Approval has just been given to the construction on the University of Saskatchewan campus of a 600-bed teaching and diagnostic hospital, to be used by the medical faculty which is being expanded to a four-year degree granting school. A large out-patient service on a Province-wide basis is in view, and an infirmary for the neighbouring university students is planned. A free blood donor service is to be set up with the aid of the Canadian Red Cross. This organization is commendably trying to develop, right across the country, means whereby free blood will be available to all who need it in surgical wards.

A further 1,200-bed hospital is scheduled for the University of Saskatchewan's campus for the care of mental cases undergoing active treatment. The central role of a first-class medical school is becoming obvious to the people of Saskatchewan in assuring them the best treatment available to medical scientists today. Starting late, they can benefit from the mistakes others have made. Their educational plans are the centre of medical interest in Canada at the present time.

Correspondence.

CERVICAL AND THORACIC INTERVERTEBRAL DISK DISEASE.

SIR: An osteopathic practitioner, writing recently to the *British Medical Journal*, pointed out that the fully fledged doctrine of intervertebral disk disease says little more than what osteopaths have been saying since 1873—when their cult was founded by Dr. A. T. Still. The truth of his contention is clear—we have but the "discogenic" lesion instead of the "osteopathic" lesion, both of which exert profound mischief by pressing upon spinal nerves. The most recent developments in discopathy (Young, THE MEDICAL JOURNAL OF AUSTRALIA, December 14, 1946) have made the parallel closer, for the appearance of the thoracic disk has rendered inevitable the annexation of all pains in the thorax—an area which previously had remained free from aggression. The position now is that any pain, from the top of the head to the big toe, may result from discopathic compression of a nerve root.

But the followers of the late W. E. Dandy are more fortunate in some ways—though less fortunate in others—than the followers of Still, for nowadays a disk does not have to herniate or press on anything to cause pain; it only has to degenerate. And, seeing that all disks degenerate with advancing years, what a field is now laid open to discopathic practice! The discopaths are less fortunate than the osteopaths in the inaccessibility of the object at which their endeavours are directed. They have risen superior to these obstacles, however, and as a result of their labours a steadily increasing proportion of mankind bears a vertical scar in the posterior mid-line.

To one who has interested himself in historical trends in medicine, however, these developments are not wholly productive of melancholy. Such erroneous doctrines, so fascinating in their simplicity, cannot be checked in mid-career. They must burn themselves out; and the sooner they reach their logical conclusion (or should the description be applicable to a movement which so sadly lacks logic?) the sooner will wiser counsels prevail. The lumbo-sacral disk, for some time an uncommon cause of pain in the leg, achieved rapid promotion after the invention of the concealed disk: the lumbar disk as a cause of backache soon appeared, followed rapidly by the cervical disk as a common cause of pain in the upper limbs. Now that the thoracic disk has arrived, we but await the appearance of the sacral disk (for disks do not have to protrude; they only have to degenerate) before we have multiple disk syndromes and pandiscitis thrust upon us.

Let our patient beware of complaining of pain in more than one region at once or in succession; he should remember that he has something like 26 disks awaiting surgical attack. Who knows but we will read in the near future about the operation of panlaminectomy? A learned biologist has told us that the present evolutionary trend is in the direction of increasing numbers of *spinæ bifidæ*. Perhaps the discopaths are the unwitting instruments of the spirit of evolution, which, not satisfied with the multiplication of *spinæ bifidæ congenitæ*, demands innumerable cases of *spina bifida artefacta*. Previous unsuccessful exploration did not deter Dandy: he reexplored and found a concealed disk, or a disk which had been inefficiently dealt with. So woe betide us should we dare to complain after our operation of discotomy; there is no limit to the number of operations which can be performed on any one disk, to say nothing of the twenty-five others.

Not for the discopaths the niceties of controversy—the keen flash of intellectual rapier upon rapier. "With gun, drum, trumpet, blunderbuss and thunder" they assail anyone who—oh! so meekly—dares ask for proofs of their assertions. With a vigour which in any other sphere could be described as vituperation, they silence all questioning by sheer intensity of sound. But the questioners are right to go on demanding proofs; it is a cardinal rule of logic that the onus of proof is upon him who propounds the theory. Where would we be if every hazardous conjecture were to be accorded the status of a scientific fact, and the onus of disproof were to be upon the questioner? "Proof", said Sir Ronald Ross, "is as necessary in science as it is in the criminal courts."

A leading exponent of the new cult is Keegan, who observed what is a not infrequent concomitant of "sciatic" pain—widespread areas of cutaneous hypoæsthesia in the limb, which did not agree with the known distribution either of nerve trunks or of posterior roots. Basing his reasoning upon the infallibility of the disk theory, he rewrote completely the chart of the lumbar and sacral dermatomes. Sherrington, Head and Foerster (and many other distinguished investigators) he held to be in error, and he discounted their laborious and hard-won proofs with the aid of conjectures which resist verification. Similarly, your recent contributor has rewritten the dermatome chart for the upper limb, but he has brought to his aid not a vestige of proof. There are few anatomical facts better established in neurology than the general plan of the dermatomes. What will happen to scientific medicine if her hard-won bastions are to fall at the first roll of the discoid drum?

Let us have those proofs.

Yours, etc.,

MICHAEL KELLY.

Melbourne,
December 17, 1946.

THE ZOOLOGICAL POSITION OF MAN.

SIR: Could "Criticus" (December 14, 1946) or Dr. Burkitt improve the term "extrasensory perception" which they both use? Written "extrasensory" or "extra-sensory" and related to perception it is contradictory and makes unnecessary difficulties. Senses are means of perception. If we have perceptions not attributable to our senses as at present demonstrable, then we have more senses than we have catalogued, and our conception of our senses may enlarge. We may experience perception by an extra sense, but not extrasensory perception.

If the term were altered—even if we had to use a clumsy phrase, such as "perception by an undefined sense"—the gain in accuracy might make such perceptions more acceptable, more sensible, to scientists concerned mainly with the better-investigated senses, to the advantage of us all.

Yours, etc.,

ALICE M. BARBER.

61, Collins Street,
Melbourne,
December 24, 1946.

A CLEAR LIGHT ON THE DIAGNOSIS AND TREATMENT OF VENOUS THROMBOSIS.

SIR: In the issue of THE MEDICAL JOURNAL OF AUSTRALIA dated November 2, 1946, and under the heading of Current Comment, "A Clear Light on the Diagnosis and Treatment of Venous Thrombosis", the author, after discussing the use of heparin in the treatment of thrombosis, closes with the following paragraph:

"At present heparin is not generally procurable in this country for the treatment of thrombo-phlebitis. We can make no advances in our management of this frequently

occurring and dangerous disease until we can purchase some from abroad or learn to prepare it locally."

I would like to direct your attention to the fact that, under the trade mark of "Liquemin 'Roche'", heparin has been obtainable in Australia for the past two or three years, and although the Australian and American army authorities made several purchases during the war years, we were never without stocks for the civilian requirements. Within the last few months large amounts have been purchased by the metropolitan hospitals.

Yours, etc.,

J. TRAHAR,
Australian Representative, Roche Products Limited.

3, Edwards Bay Road,
Mosman,
New South Wales.
December 27, 1946.

CHROMOBLASTOMYCOSIS.

SIR: Major J. D. Hicks has described a case of chromoblastomycosis occurring in an Australian (THE MEDICAL JOURNAL OF AUSTRALIA, November 16, 1946, page 705). This fungous infection of the skin does not seem to have been recorded in Australia prior to the two cases described by Saxton, Hatcher and Derrick earlier this year (THE MEDICAL JOURNAL OF AUSTRALIA, May 18, 1946, page 695).

However, the infection is well known to many practitioners in North Queensland, under a variety of names. Indeed, the diagnosis is often made on clinical grounds, and, in the past, biopsy was evidently considered unnecessary in most cases. Over the last few months I have been able to confirm the diagnosis histologically in four cases from whom biopsies were taken.

A radium clinic was established in Townsville in 1930. As a proportion of these cases are referred to the clinic for treatment, Dr. G. H. Moore, the medical superintendent of the Townsville General Hospital, kindly granted me permission to search the case histories to gain some impression of the frequency of the infection. Of 2,780 patients seen at the radium clinic since 1930, the records of 36 cases of skin disease probably due to infection with chromoblastomycetes were found. In recent case records the condition is labelled "blastomycosis", but in earlier years it was often called "subcutaneous mycosis". In four of these cases the diagnosis was confirmed histologically, but in the others there is no record of biopsies having been taken and therefore the diagnosis is not certain. However, from the description of the lesions, their situation, often their long duration and their response to treatment, it seems likely that they were cases of chromoblastomycosis. Eleven of these patients resided in Townsville, twenty-three were referred from other towns in North or North-Western Queensland, and in two cases there is no record of the place of residence.

Males are more prone to infection (thirty-three males and only three females in the clinic series). The males in this series were almost all outdoor workers at the time they acquired the infection. The ages of the patients are recorded in 35 cases. The average age is 54, the extremes being 82 and 27.

The clinical features of the infection often enable the diagnosis to be made with confidence on inspection. The lesions favour the exposed parts, usually the forearm or dorsum of the hand. They may occur on the lower leg and even on the face. There is usually a history of trauma followed by the appearance of a pimple which slowly increases in size. The long duration of the eruption is noteworthy. In these 36 cases the duration is recorded in 30. It averages four and a half years, the extremes being twenty years and seven weeks. The infection progresses slowly, the advancing edge and sometimes the whole patch being reddened, warty and scaly. The outline is often serpiginous. There is a tendency towards healing in the centre. A radium mould has been the treatment of choice at the radium clinic, although some cases have responded slowly to large doses of potassium iodide internally combined with the application of packs moistened with half-strength Lugol's solution.

The chromoblastomycetes are sometimes difficult to find and a prolonged search of the whole section with a one-sixth inch objective may be necessary in cases where the fungus is scanty. It is probable that in some cases the organisms do not appear in the sections examined and the diagnosis is therefore missed.

The purpose of this letter is to indicate that chromoblastomycosis of the skin is probably commoner, at all events in North Queensland, than the paucity of reports suggests. Further work will be necessary to identify the species of blastomycete responsible. To date biopsies referred to me have all arrived fixed in formalin. It is hoped to undertake cultural study of the organism in future cases presenting in Townsville.

Yours, etc.,

F. R. TOD STEVENS.

Commonwealth Health Laboratory,
Townsville,
December 30, 1946.

SOME PROBLEMS OF VARICOSE VEINS.

SIR: I am writing again on this subject to comment on Dr. S. L. Spencer's letter of December 14, 1946.

His remarks on the differentiation between ordinary varicose veins in a patient with a history of earlier deep thrombosis and true compensatory veins are very much to the point. I agree about the usefulness of the tourniquet test. No decision as to advisability or otherwise of treatment should be made, of course, until patency of deep veins is carefully investigated.

The paragraph quoted did not, I am afraid, convey the meaning I intended. I, too, am all against abandoning varicose vein patients for fear that their veins may be compensatory when a history of earlier deep thrombosis is present.

The case I mentioned in this paragraph had been very carefully examined and the decision had been made that the deep veins were not patent. The thrombo-phlebitis in the superficial vein caused alarm, for serious results were expected. That none happened, suggested that our diagnosis of deep vein occlusion was wrong, and that recanalization had occurred. I agree with Dr. Spencer that this can occur in time. The lesson suggested is that something may be done even in cases that, clinically, have occluded deep veins. However, I realize one case proves nothing, and feel that, with such findings, conservatism is the wisest course until our knowledge and experience are greater.

Yours, etc.,

C. H. WICKHAM LAWES.

185, Macquarie Street,
Sydney,
January 6, 1947.

LUMBAGO.

SIR: Dr. McKellar Hall (THE MEDICAL JOURNAL OF AUSTRALIA, December 28, 1946, page 917) believes that lumbago is a "painful condition of the lumbar muscles and fascia". He writes of sacro-spinales which are "the seat of inflammation" and of "replacement of the sarcoplasm by fibrous tissue and atrophy and degeneration".

I challenge Dr. Hall to produce microscopic sections showing these lesions. If he can he will make medical history where many before him have failed. If he cannot he will not have one shred of evidence to support his opinions.

Yours, etc.,

JAMES H. YOUNG.

131, Scarborough Beach Road.
Mount Hawthorn,
Western Australia.
January 8, 1947.

Research.

THE ELLA SACHS PLOTZ FOUNDATION FOR THE ADVANCEMENT OF SCIENTIFIC INVESTIGATION.

DURING the twenty-third year of the Ella Sachs Plotz Foundation for the Advancement of Scientific Investigation, forty applications for grants were received by the trustees, twenty-nine of which came from the United States, the other eleven coming from seven different countries in Europe, Asia, North America and South America.

In the twenty-three years of its existence the Foundation has made five hundred and fifty-one grants which have been distributed to scientists throughout the world.

In their first statement regarding the purposes for which the fund would be used, the trustees expressed themselves as follows:

> 1. For the present, researches will be favoured that are directed towards the solution of problems in medicine and surgery or in branches of science bearing on medicine and surgery.

2. As a rule, preference will be given to researches on a single problem or on closely allied problems; it is hoped that investigators in this and in other countries may be found whose work on similar or related problems may be assisted so that more rapid progress may be made possible.

2. Grants may be used for the purchase of apparatus and supplies that are needed for special investigations, and for the payment of unusual expenses incident to such investigations, including technical assistance, but not for providing apparatus or materials which are ordinarily a part of laboratory equipment. Stipends for the support of investigators will be granted only under exceptional circumstances.

In the past few years the policy outlined in paragraph 2 has been neglected and grants will be given in the sciences closely related to medicine without reference to special fields. The maximum size of grants will usually be less than $500.

Applications for grants to be held during the year 1947-1948 must be in the hands of the Executive Committee before April 15, 1947. There are no formal application blanks, but letters asking for aid must state definitely the qualifications of the investigator, an accurate description of the research, the size of the grant requested and the specific use of the money to be expended. In their requests for aid, applicants should state whether or not they have approached other foundations for financial assistance and what other sources of support are relied on for research. It is highly desirable to include letters of recommendation from the directors of the departments in which the work is to be done. Only applicants complying with the above conditions will be considered.

Applications should be sent to Dr. Joseph C. Aub, Massachusetts General Hospital, Fruit Street, Boston 14, Massachusetts, U.S.A.

Obituary.

BASIL DIETHELM.

WE are indebted to Dr. John Sevier for the following appreciation of the late Dr. Basil Diethelm.

The sudden death at Sydney on October 16, 1946, of Dr. Basil Diethelm at the age of twenty-nine years brought to an untimely end a very promising medical career; the community as well as his relatives suffered a great loss.

Basil was born at Grafton, New South Wales, on September 3, 1917, the third son of Dr. and Mrs. Oscar Diethelm. From his first years he was brought up in a home where the spirit of help and service to fellow men was inculcated in him. As a family he and his three brothers could not help but learn the devotion, the unselfish spirit and the arduous life required of a medical practitioner. Right throughout his life he was to be inspired by the example and the standard set by his father in the practice of medicine. He learnt also the affection and comradeship and cooperation which exist in a happy family life.

When Dr. Oscar Diethelm moved from Grafton to Macquarie Street, Basil was educated at Sydney High School, and from there matriculated in the University of Sydney in 1935, with no thought other than to give the best in himself to medicine and the community.

His career at the university was marked by work of a consistently high standard, so that at graduation in 1940 he was well up with the leaders in his final year. His interests and activities outside the lecture halls and clinical schools were wide, varied and unbounded. No one attracted to himself more friends than Basil, and it was without effort on his part, for he had that popularity accorded to those possessing much personal friendliness and charm of manner. No one loved life nor enjoyed living more than Basil, but he loved his work no less.

In 1941 and 1942 he was a junior, then senior resident medical officer at Saint Vincent's Hospital, and anæsthetic registrar. His clinical acumen, natural reasoning ability and an unfailing grasp of the essential soon marked him out for a happy future. He gave freely of himself to his work and took a real and genuine interest in the welfare and comfort of his patients, setting a worthy example for others to follow. He never spared himself at the expense of a patient, even though at this time he knew the terrible threat which was hanging over his life.

His marriage in June, 1942, to Miss Peggy Cooper brought him great happiness, and in March, 1944, a son, Basil John, was born.

After many unsuccessful attempts, Basil succeeded in June, 1942, in enlisting in the Second Australian Imperial Force. To his great disappointment he was not allowed to proceed overseas, so, in his typical whole-hearted fashion, he threw himself into his service life and work in Australia. Towards the end of 1943 it was necessary for health reasons for him to resign his commission in the Australian Army Medical Corps, much to his regret.

He then commenced practice in Macquarie Street as an anæsthetist, and was the first to gain the newly instituted Diploma in Anæsthesia of the University of Sydney. As an anæsthetist, his work was outstanding, and he was eagerly sought after by both surgeons and patients, for his zeal, care and attention to the welfare of the patient soon became manifest. To his credit let it be placed on record that he could have found a ready-made position and practice for himself in the footsteps of his father as a physician, and a very capable physician he would have been, had he so elected. If his health had been good, he undoubtedly would have followed the practice of medicine as a specialty, as he had the ability and all the qualities in the making of a good physician. But he recognized his physical disability would have been a severe handicap to him for success in this sphere. Consequently, in keeping with his character and nature, he decided to stand on his own feet and make his way on his own merits and ability, which he was indeed doing so successfully and with such credit to himself when he was called away.

Despite the responsibilities of his home, family and work, he still found time to keep in touch with his wide circle of friends. His thoughtfulness in seeking out and helping those in need of aid was truly amazing; his generosity in all things was unbounded; no aid was too small nor too great for Basil to attempt to render; and his friendly disposition delighted in appreciating others' problems and making them his own.

He held honorary appointments in anæsthesia at Saint Vincent's Hospital, Royal Prince Alfred Hospital, Sydney Hospital, Lewisham Hospital and Sydney Dental Hospital, and he was Honorary Treasurer of the Australian Society of Anæsthetists.

Basil possessed courage of an order not granted to many men. He knew the gravity of his own illness and that rest was the only therapy of any avail, yet he kept on working at his self-appointed task, managing all the while to hide, even from those who knew him best, how precarious was the state of his own health. He was outwardly cheerful and happy right to the end, sharing his friends' joys and sorrows with them, gaily planning for the future. But then, with tragic suddenness, the end came—an end just as he would have wished it to be—doing his favourite work in his well-loved Saint Vincent's Hospital.

The attendance at his funeral of all ages, classes, creeds and callings who had come to pay their last tribute to a true friend was proof-positive, if any were needed, of the high respect and admiration in which Basil was held by his fellow men and women.

For those who were honoured and fortunate enough to know Basil as a friend, his passing has been an irreplaceable loss. To his wife, son, parents and brothers, all we can offer is sympathy and understanding in their immeasurably greater loss. That one who was so young and who loved life and his fellows so dearly should die at the very outset of what would undoubtedly have been a brilliant career is inexplicable and tragic; yet we know that the name and memory of Basil Diethelm will not soon be forgotten and that he did not live in vain—a life which even in its short span gave much happiness and pleasure to his family and friends, and which was filled with most useful service to the community in general.

To Basil Diethelm the words of Winston Churchill might well apply: "He was well beloved because of his courage and nature, his simple way of living and his tireless attention to duty."

WILLIAM ROY WILSON.

WE are indebted to Dr. E. P. Holland for the following appreciation of the late Dr. William Roy Wilson.

On November 21, 1946, Dr. William Roy Wilson died at Southport, Queensland. His death, though sudden, was not unexpected. Failing health had caused his retirement from practice in Grafton, New South Wales, in December, 1945, at a comparatively early age.

He was born in Sydney, educated at the Church of England Grammar School, North Sydney, and completed his medical course at the University of Sydney in 1925. He subsequently acted as resident medical officer at Toowoomba

Hospital, and came to Grafton in 1927, having bought the practice of the late Dr. McArthur. In 1932 he became associated with Dr. Holland, Dr. Macdonald, Dr. Mulhearn and Dr. Woodward in the formation of a group practice, in which he devoted himself especially to the ear, nose and throat work. In 1936 he went overseas and did post-graduate work in this branch of surgery in Vienna and London.

During the war years he worked hard and loyally in his ordinary practice, and, though rejected for service with the forces, played his part ably and well in looking after the civilian population, and devoted much time to work in connexion with the Emergency Medical Service and first-aid classes, to both of which he gave generously of his scanty leisure; and though often tired through overwork and not feeling well, he never neglected his duties as instructor and lecturer.

Eventually his health failed and he was forced to retire from practice. To no small degree must he be regarded as a war casualty.

For sixteen years he was a member of the Grafton Ambulance Committee, and was elected chairman in 1945. He was made a life member of the New South Wales Ambulance Transport Service, and also a life member of Saint John Ambulance Association. He was a most conscientious and hard-working practitioner, and the love and respect of his many patients, perhaps especially his lodge patients, will not soon be forgotten. He married Miss Eileen Foote, of Brisbane, and is survived by her and two children.

ARTHUR MACAFEE BURGE.

WE regret to announce the death of Dr. Arthur Macafee Burge, which occurred on January 9, 1947, at Randwick, New South Wales.

JACK MOWBRAY THOMSON.

WE regret to announce the death of Dr. Jack Mowbray Thomson, which occurred on January 12, 1947, at Brisbane.

Australian Medical Board Proceedings.

NEW SOUTH WALES.

THE undermentioned have been registered, pursuant to the provisions of the *Medical Practitioners Act*, 1938-1939, of New South Wales, as duly qualified medical practitioners:

Hession, George Edward, M.B., B.S., 1946 (Univ. Sydney), Saint Vincent's Hospital, Darlinghurst.

Hilton Smith, Thea, M.B., B.S., 1946 (Univ. Sydney), Balmain and District Hospital, Sydney.

Hirschmann, Hans, M.B., B.S., 1946 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

Holland, Edward Henry, M.B., B.S., 1946 (Univ. Sydney), Wollongong District Hospital, New South Wales.

Hook, Reginald Harley, M.B., B.S., 1946 (Univ. Sydney), St. George District Hospital, Kogarah.

Hudson, Catherine Amy, M.B., B.S., 1946 (Univ. Sydney), Royal North Shore Hospital, St. Leonards.

Hytten, Frank Eyvind, M.B., 1946 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

Keller, Douglas Holcombe, M.B., B.S., 1946 (Univ. Sydney), Royal North Shore Hospital, St. Leonards.

Kennedy, Kevin, M.B., 1946 (Univ. Sydney), Saint Vincent's Hospital, Darlinghurst.

Lafferty, Kevin Ambrose, M.B., B.S., 1946 (Univ. Sydney), Saint Vincent's Hospital, Darlinghurst.

Lake, Max Emory, M.B., B.S., 1946 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

Leaver, John Fielding, M.B., B.S., 1946 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

Lee, Joseph Julius, M.B., B.S., 1946 (Univ. Sydney), Royal South Sydney Hospital, Zetland.

Macarthur, Robert James, M.B., B.S., 1946 (Univ. Sydney), Balmain and District Hospital, Sydney.

McElhone, Mary Mabel, M.B., B.S., 1946 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

McFarland, Dorothy Mae, M.B., B.S., 1946 (Univ. Sydney), Rachel Forster Hospital for Women and Children, Redfern.

McGuire, Labeeb Isaac, M.B., B.S., 1946 (Univ. Sydney), Brisbane General Hospital, Brisbane.

QUEENSLAND.

THE undermentioned have been registered, pursuant to the provisions of *The Medical Acts, 1939 to 1946*, of Queensland, as duly qualified medical practitioners:

Harrold, Arthur George, M.B., B.Chir., 1943 (Univ. Cambridge), *81, Darling Point Road, Edgecliff, New South Wales.*

Church, Louis Vivian, M.B., B.S., 1941 (Univ. Sydney), *Central Chambers, Bolsover Street, Rockhampton.*

Haneman, Benedatto, M.B., B.S., 1944 (Univ. Sydney), Aramac.

Carter, Lindsay Vaughan, M.B., B.S., 1942 (Univ. Sydney), 100, Greenwich Road, Greenwich, New South Wales.

The following additional qualifications have been registered:

Merton, Thomas Allenby, B.S., 1946 (Univ. Sydney), Cooktown Hospital, Cooktown.

Medical Prizes.

THE FRANCIS AMORY SEPTENNIAL PRIZE OF THE AMERICAN ACADEMY OF ARTS AND SCIENCES.

IN compliance with the terms of a gift under the will of the late Francis Amory, of Beverly, Massachusetts, the American Academy of Arts and Sciences offers a substantial prize for outstanding work addressed to the alleviation or cure of diseases affecting human reproductive organs. The gift provides a fund, the income of which may be awarded at seven-year intervals "as a prize and gold medal, or other token of honour of merit", to any individual or individuals for work of "extraordinary or exceptional merit" in this field. In case there has appeared work of a quality to warrant it the next award will be made in 1947. Awards will be made for what in the judgement of the committee on the Amory Fund appears to be the most outstanding contribution or contributions in the field as outlined and as based on published work and recognized accomplishment for the current seven-year period.

No formal applications and no essays or treatises from individuals are solicited, but suggestions will be welcome from any appropriate source that will be of aid to the committee in making a wise selection.

Recommendations may be addressed to the Secretary, Amory Fund Committee, American Academy of Arts and Sciences, 28, Newbury Street, Boston, Massachusetts.

THE FEDERAL MEDICAL WAR RELIEF FUND.

THE following contributions to the Federal Medical War Relief Fund have been received:

New South Wales.

J. Foreman, £26 5s.
W. F. Simmons (fourth contribution), £25.
Anonymous, L. J. Spence, £10 10s.
G. E. Hobson, £5 5s.
D. C. Howle, £2 2s.
J. C. Lane, A. E. M. Reddel, £1 1s.
Total: £81 14s.

Victoria.

Esme V. Anderson, £13 4s. 3d.
G. Winter Ashton, £10 10s.
Roy F. Watson, £5 5s.
Douglas Galbraith, £2 2s.
Total: £31 1s. 3d.
Grand total: £16,198 4s. 9d.

Nominations and Elections.

THE undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

Horsley, Roberta Gertrude, M.B., B.S., 1945 (Univ. Sydney), Manly District Hospital, Manly.

Palmer, Calvin Henry, provisional registration, 1946 (Univ. Sydney), Lismore Base Hospital, Lismore.

Dimond, Charles Major, M.B., B.S., 1945 (Univ. Sydney), 8, Bromley Flats, Gladswood Gardens, Double Bay.
Fraser, Wallace Hugh, M.B., B.S., 1931 (Univ. Sydney), 217, Macquarie Street, Sydney.

The undermentioned have applied for election as members of the South Australian Branch of the British Medical Association:

Nancarrow, Malcolm Ewart, M.B., B.S., 1946 (Univ. Adelaide), 15, Stanley Street, Woodville.
Hawke, Vivian Lee, M.B., B.S., 1946 (Univ. Adelaide), 28, Unley Road, North Unley.
Nicholls, James, M.B., B.S., 1942 (Univ. Adelaide), Mt. Gambier, South Australia.

The undermentioned has applied for election as a member of the Tasmanian Branch of the British Medical Association:

Ford, Ronald Munro, M.B., B.S., 1943 (Univ. Adelaide), 2, Melville Street, Hobart.

The undermentioned have been elected as members of the New South Wales Branch of the British Medical Association:

Conomy, Albert Bruce, M.B., B.S., 1945 (Univ. Sydney), c.o. Mr. C. M. C. Barling, Forest Road, Peakhurst.
Finckh, Ernest Sydney, M.B., B.S., 1946 (Univ. Sydney), 13, Wharf Road, Snails Bay.
Greenwell, John, M.B., B.S., 1946 (Univ. Sydney), 145, Katoomba Street, Katoomba.
Harris, Louis Leslie, M.B., B.S., 1940 (Univ. Sydney), 268, Victoria Avenue, Chatswood.
Hicks, Kenneth Edward, provisional registration, 1946 (Univ. Sydney), The Maitland Hospital, West Maitland.

The undermentioned have been elected as members of the South Australian Branch of the British Medical Association:

McKenzie, Mary, M.B., B.S., 1946 (Univ. Adelaide), 8, Second Avenue, Alberton East.
Pash, Hannah June, M.B., B.S., 1946 (Univ. Adelaide), 21, Hilder Terrace, Hawthorn.
Simmons, Alfred, M.B., B.S., 1942 (Univ. Adelaide), Ardrossan, South Australia.

Medical Appointments.

THE following appointments have been made to the Royal Adelaide Hospital, Adelaide: Medical Section, Dr. R. N. C. Bickford, Dr. R. T. Binns, Dr. J. M. Bonnin, Dr. J. L. Hayward, Dr. M. W. Miller, Dr. R. A. A. Pellew, Dr. C. T. Piper, Dr. J. W. Sangster, Dr. R. F. West and Dr. J. C. Yeatman. Surgical Section, Dr. J. R. Barbour, Dr. N. J. Bonnin, Dr. A. G. Campbell, Dr. D. C. Dawkins, Dr. G. M. Hone, Dr. B. G. Johnston, Dr. L. J. T. Pellew, Dr. J. L. S. Scott, Dr. G. H. Solomon and Dr. G. McL. Turnbull. Allergy Clinic, Dr. J. E. Bateman. Ophthalmological Section, Dr. D. O. Crompton, Dr. T. L. McLarty, Dr. S. Pearlman and Dr. C. S. Swan. Dermatological Section, Dr. W. Gilfillan, Dr. A. J. Hakendorf, Dr. C. H. Schafer and Dr. F. G. T. Turner. Orthopædic Section, Dr. N. P. Wilson.

Dr. S. L. Mainland has been appointed medical officer of health, Municipality of Narrogin, Western Australia.

Dr. R. T. Allan has been appointed a member of the Indeterminate Sentences Board, pursuant to the provisions of Section 531 of the *Crimes Act*, 1928, of Victoria.

Dr. W. J. Freeman has been appointed official visitor to the Lachlan Park Hospital, Tasmania, in accordance with *The Insane Persons Hospitals Amendment Act*, 1885.

Books Received.

"Spiders, Ticks and Mites: Including the Species Harmful to Man in Australia and New Guinea", Section I, Descriptive: by the late F. H. Taylor, F.R.E.S., F.Z.S., Section II, Clinical: by R. E. Murray, M.B., B.Sc., D.T.M. (Sydney); Commonwealth Department of Health, Service Publication (School of Public Health and Tropical Medicine), Number 6, 1946. 9¼" x 6", pp. 278, with many illustrations.

"Practical Points in Penicillin Treatment", by G. E. Beaumont, D.M. (Oxon.), F.R.C.P. (London), and K. N. V. Palmer, M.B. (Cantab.), M.R.C.P. (London): 1946. London: J. and A. Churchill Limited. 7¼" x 5", pp. 20. Price: 1s. 6d.

"Tumores Broncogenicos", by Hernán D. Aguilar; 1946. Buenos Aires: Librería y Editorial El Ateneo. 8¾" x 6¾", pp. 460.

"Medical Electricity for Massage Students", by Hugh Morris, M.D., D.M.R.E.; Third Edition; 1946. London: J. and A. Churchill Limited. 8¼" x 5¼", pp. 356, with illustrations. Price: 21s.

"Anæsthetic Methods", by Geoffrey Kaye, M.D. (Melbourne), D.A. (R.C.P. & S. England), in collaboration with Robert H. Orton, M.B., B.S. (Melbourne), and Douglas G. Renton, M.B., B.S. (Melbourne), D.A. (R.C.P. & S. England); 1946. Melbourne: Ramsay (Surgical) Proprietary Limited. 9" x 5¼", pp. 718, with many illustrations. Price: 50s.

"Penicillin: Its Practical Application", under the general editorship of Professor Sir Alexander Fleming, M.B., B.S., F.R.C.P., F.R.C.S., F.R.S.; 1946. London, Africa, Australia, Canada, India, New Zealand: Butterworth and Company (Publishers), Limited. 8½" x 5½", pp. 392, with illustrations. Price: 38s. 9d.

Diary for the Month.

JAN. 21.—N.S.W. Branch, B.M.A.: Medical Politics Committee.
JAN. 22.—Victorian Branch, B.M.A.: Council Meeting.
JAN. 24.—Queensland Branch, B.M.A.: Council Meeting.
FEB. 4.—N.S.W. Branch, B.M.A.: Organization and Science Committee.
FEB. 4.—N.S.W. Branch, B.M.A.: Special Groups Committee.
FEB. 11.—N.S.W. Branch, B.M.A.: Executive and Finance Committee.
FEB. 18.—N.S.W. Branch, B.M.A.: Medical Politics Committee.
FEB. 25.—N.S.W. Branch, B.M.A.: Ethics Committee.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Honorary Secretary, 135, Macquarie Street, Sydney): Australian Natives' Association; Ashfield and District United Friendly Societies' Dispensary; Balmain United Friendly Societies' Dispensary; Leichhardt and Petersham United Friendly Societies' Dispensary; Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney; North Sydney Friendly Societies' Dispensary Limited; People's Prudential Assurance Company Limited; Phœnix Mutual Provident Society.

Victorian Branch (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federated Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

Queensland Branch (Honorary Secretary, B.M.A. House, 225, Wickham Terrace, Brisbane, B.17): Brisbane Associated Friendly Societies' Medical Institute; Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 178, North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South Australia.

Western Australian Branch (Honorary Secretary, 205, Saint George's Terrace, Perth): Wiluna Hospital; all Contract Practice appointments in Western Australia. All government appointments with the exception of those of the Department of Public Health.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

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